

CLIMATE AND ENERGY TRANSITION REPORTING

in Peninsular Malaysia's Mainstream News Media



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CLIMATE AND ENERGY TRANSITION REPORTING

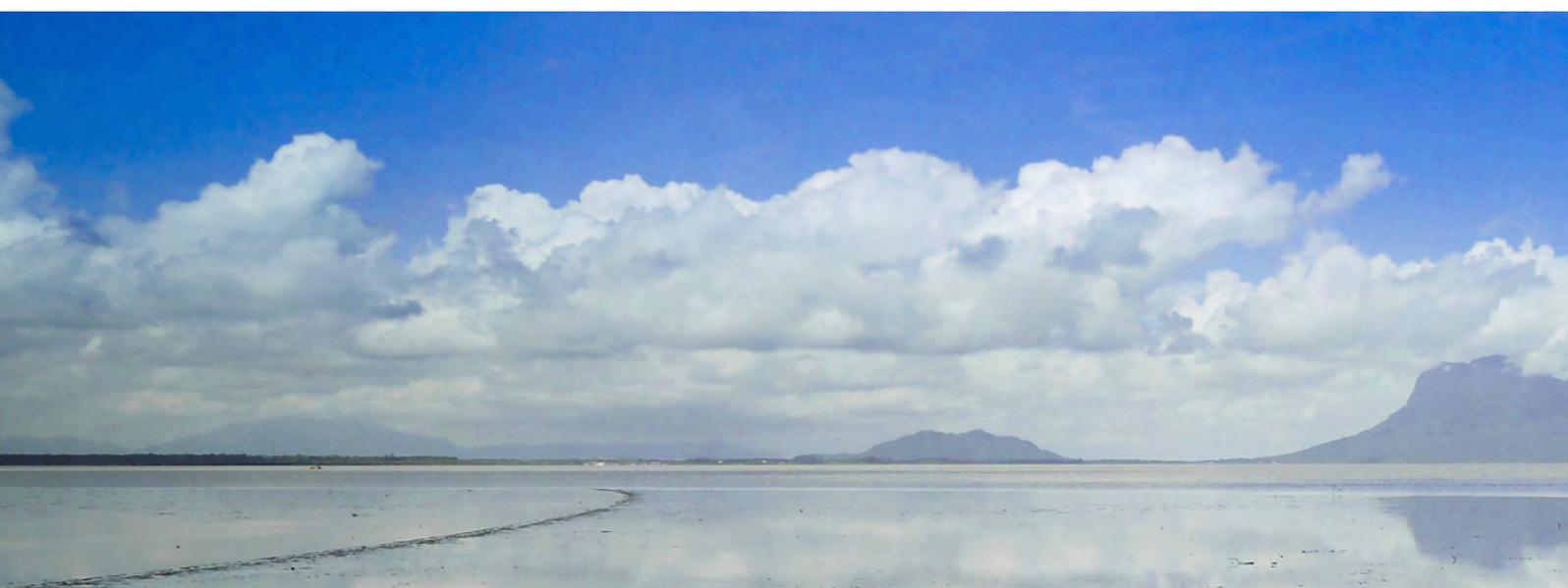
in Peninsular Malaysia's Mainstream News Media



A report by Lensa Iklim programme
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PREFACE





KAMY Programme Director - Ili Nadiah Dzulfakar

This report is developed as part of Lensa Iklim, or Climate Lens, a climate and energy journalism programme that aims to upskill and empower Malaysian journalists and mainstream news media in improving climate and energy transition reporting. This programme is a Klima Action Malaysia (KAMY)'s initiative funded by the European Climate Foundation (ECF). The UN recognises the right to a clean, healthy, and sustainable environment as a human right. Adopting these rights as statutory safeguards in Malaysia should be expedited, including the right to information. This report aims to contribute to understanding and strengthening the information ecosystem surrounding climate communication.

<https://www.klimaactionmalaysia.org/lensaiklim>

Reviewer - Evelyn Teh

Undoubtedly, the two intricately related themes fundamentally shaping today's geopolitical and socio economic landscape are climate and energy. Malaysia is not exempted from the impacts caused by these twin crises, but so little about this critical matter is discussed in the country's mainstream media for the benefit of its citizens. This is why the Lensa Iklim programme is a step in the right direction, a critical opportunity for Malaysian journalists to generate localised, intersectional articles that develop the narrative of climate and energy beyond the typical business news reporting. I trust that the insights generated from this programme will pave the path for more climate and energy transition reporting in Malaysia, in pace with a world that is undergoing rapid changes due to climate change.



Reviewer - Nadiah Rosli

The impact of climate change is already here in Malaysia and the media plays a vital role in providing information on the country's plans to move towards cleaner, and more efficient, sustainable energy. Thus, this study and the ongoing Lensa Iklim program by KAMY are timely to inform editors and journalists on the media trends, discourse and reporting constraints on climate and energy transitions – topics which receive little attention in our media outlets. There is a big potential for Malaysian journalists to highlight stories concerning domestic contexts and priorities for climate and energy transition, go beyond the economic focus, feature underrepresented voices and foster public awareness on the long-term benefits of a just transition.



LIST OF ACRONYMS

AF	Adaptation Fund
AR6	Sixth Assessment Report
CBDR	Common but differentiated responsibilities
CCS	Carbon capture and storage
CCUS	Carbon capture, utilisation and storage
CCPT	Climate Change and Principles-based Taxonomy
COP	Conference of Parties
DETS	Domestic Emissions Trading Scheme
DOSM	Department of Statistics Malaysia
ESG	Environment, Social and Governance
ETS	Emissions Trading Scheme
FPIC	Free Prior Informed Consent
GCF	Green Climate Fund
GDIMY	Gabungan Darurat Iklim Malaysia
GEF	Global Environment Facility
GHG	Greenhouse gases
KASA	Kementerian Alam Sekitar dan Air (Ministry of Environment and Water, now NRECC)
KETSA	Kementerian Tenaga dan Sumber Asli (Ministry of Energy and Natural Resources, now NRECC)
LCNA	Low Carbon Nation Aspirations
LDCF	Least Developed Countries Fund
LSS	Large Scale Solar
NADMA	National Disaster Management Agency
NAP	National Adaptation Plan
NDC	Nationally Determined Contributions
NEP	National Energy Policy 2022 - 2040
NRECC	Ministry of Natural Resources, Environment and Climate Change (from December 2022)
ORS	Off-river storage
PEKA	Pertubuhan Pelindung Khazanah Alam Malaysia
PSC	Parliamentary select committee
PSI	Penang South Islands
PSR	Penang South Reclamation
RE	Renewable Energy
SAM	Sahabat Alam Malaysia
SC	Securities Commission Malaysia
SCF	Standing Committee on Finance
SCCF	Special Climate Change Fund
SRI	Sustainable & Responsible Investment
UNFCCC	United Nations Framework Convention on Climate Change
VCM	Voluntary Carbon Market



EXECUTIVE SUMMARY

Journalists and editors interviewed agree climate and transition issues are underreported in Malaysian news media due to myriad interacting factors stemming from the lack of newsroom prioritisation and editorial resources preventing a better treatment of climate and transition stories.

News media plays a significant role in communicating the climate crisis, the solutions, and what actions are being taken (or not, as the case may be) by communities, corporations and countries to avert global climate disasters. How is Malaysia's media communicating climate and energy transition within the local context? This report examines how the main online print news media in Peninsular Malaysia report on key climate and energy transition issues and the barriers that journalists and media organisations confront as a result.

Regarding the energy transition, the dominance of fossil fuels in Malaysia's energy mix is expected to remain, as outlined in the National Energy Policy (NEP) 2022-2040, with a reliance on natural gas instead of coal. Reflecting this, the media reportage on coal is subdued, mostly framed neutrally and negatively, with news on retiring coal power plants and repowering with natural gas and getting "hydrogen ready". What stood out was the mixed messaging by the government, as "no more new coal power plants" was announced at major launches such as the NEP and the 12th Malaysia Plan (12MP).

Despite Malaysia's goal to become carbon neutral by 2050, numerous ministers later declared that Malaysia will only stop building coal power plants by 2040, as stated in national energy development plans. Energy reporting was mainly written as hard news on business pages; however, two online publications published long-form stories on the coal industry, looking deeper into the political, economic, social and environmental costs of coal. The report investigation came not at the height of coal consumption in Malaysia but on the eve of its demise.

In contrast, there was positive newsmaking on natural gas, a major national export commodity and currently a lynchpin of the national plan to transition to lower carbon energy sources, as noted in the NEP. Media coverage on the NEP includes its positive impact on the natural gas industry, aligned with news reports on the expansion of the role of natural gas and the ambition to make Malaysia (to be precise, Sarawak) the hub of carbon capture storage (CCS) and the hydrogen economy. These were positively framed as the future economic drivers

of development, with similarly positive reports on related new downstream industries such as sustainable aviation fuel. Reports on the Sarawak land code and forest ordinance amendments to permit CCS activity on and offshore were also reported positively in national news media. At the time of writing, there has been minimal criticism of these developments.

The solar energy sector has been the major story in renewables over the past two years, with encouraging coverage on the government's dynamic policies and strategies for all three tiers of the solar industry: large-scale solar (LSS), mid-tier construction and industry (C&I), and small-scale residential. News coverage focused on LSS and C&I projects, much less on residential, although the latter is noted to have significant potential in increasing national renewable capacity. Residential rooftop solar is reported to be hindered by high investment costs and a lack of awareness among homeowners about available incentives and schemes.

For hydropower, the focus was on the 300MW, Sukuk-funded Nenggiri dam project by Tenaga Nasional Berhad (TNB). Most of the project news coverage was framed positively as a significant contribution to the country's energy transition goals (the official inclusion of large hydropower as a renewable energy source in 2021) and for additional water supply and flood management. The protests by the affected Temiar Orang Asli communities were played down and featured in only a few news outlets and were not reflected in the business reporting. Media has yet to look in-depth at the intersectoral aspects or social or environmental impacts of the project. In this aspect, the media did not offer any new narratives on large hydropower projects, with conflicts and unsolved issues with Orang Asli rights, such as the question of free, prior, and informed consent (FPIC) and the acquisition of native customary lands, lingering in the background.

Energy transition reporting was focused on the business pages and mostly straightforward on announcements, launches, and the ilk: the "who's doing what and how much things cost". Several broader analyses on the Environment,

Social and Governance (ESG) framework were published; however, the media focus was almost entirely on the "E", or, to be more specific, climate, with little attention paid to social and governance aspects. A small number of columnists have started to question the priorities of Malaysia's current non-binding climate action trajectories and are advocating a more balanced response with a more urgent focus on adaptation, as Malaysia is more vulnerable to than responsible for the climate crisis based on historical emissions.

Media articles have reported on the current issues, from floods and landslides to coastal erosion. However, flooding has received greater attention due to the scale of disasters in the last two years. Scientists were "roped in" to give commentaries on scientific explanations, among others. They and other columnists point out that the disaster was not just about the prevalence of more extreme weather systems but inexplicably compounded by human factors induced by poor governance. Deforestation and unsustainable land use change are some of these examples, in addition to inadequate or improper urban development and planning, the lack of early warning systems, poor disaster response at the onset of the floods, and so on. Although allocations for flood mitigation projects were announced in the Budget 2023 (yet to be tabled at the time of writing), little else was reported on what is in store for flood adaptation or climate adaptation plans.

With the focus on floods and the aftermath (e.g., climate/disaster litigation), there was less attention on other issues such as coastal, marine, fisheries and food security in the mainstream media. Instead, some of these issues were examined in long-form by specialist media like Macaranga or as special projects by mainstream media. However, mainstream media reported on large-scale reclamation projects, especially the controversial Penang Southern Reclamation project, focusing on the opposition by fisherfolk communities, NGOs and CSOs, and members of Parliament.

There has been a noticeable lack of media spotlight on solutions to climate impacts, such as strategies and plans to maintain vital ecosystems such as mangroves, coral reefs, and watersheds. The National Adaptation Plan is still being developed at the time of this writing. However, scientists and other sectoral experts contributing op-eds and or featured in articles have highlighted and recommended the best practices and strategies Malaysia can implement. More is needed to illustrate a bigger picture of what the impending climate crisis will imply to society and what possible solutions to increase readers' awareness and hold the duty bearers and other actors accountable.

The United Nations Framework Convention on Climate Change Conference of Parties (UNFCCC COP26 in 2021 and COP27 in 2022) took place in the thick of national political upheavals. There was a change in government a few months before COP26, and an ongoing general election in 2022 during COP27. Local reports for both COP events were in short supply. However, thanks to media grant funding, The Edge covered the highlights of Malaysian delegates in COP26. Malaysian delegates and observers at COP27 have consistently advocated for a shift in focus from mitigation to climate adaptation and funding. Meanwhile, op-eds have scrutinised the dominance of powerful elites in determining the policy directions of the COP platform. These articles, however, were mainly of national and corporate interests. Malaysian youth, Orang Asli, and non-governmental organisation (NGO) delegates attended COP27 as well, but their experiences were not featured in mainstream news media at the time of writing.

Finally, this research seeks insights from media practitioners. Journalists and editors interviewed reached a consensus that climate and transition issues are underreported in Malaysian news media due to complexities stemming from the lack of newsroom prioritisation and editorial resources preventing a better treatment of climate and transition stories. Apart from long-form special features and investigative reporting, the general news desk staff covering climate news must also compete with other breaking news stories. Energy news, on the other hand, is found mainly on business pages, written for business interests, rather than as general interest stories, although there are a few exceptions, such as on electric vehicles and solar. Energy is only covered in general news if it is focused on national interests (e.g., pricing) or national climate targets.

Almost half of the articles analysed in this research quoted only one source, with politicians and government accounting for the bulk of the sources cited. Journalists perceive climate and energy news as primarily single-sourced, based on press releases, lacking depth and nuance attributed to newsroom limitations. The research found that the lack of financial and human resources, difficulties accessing government data and information, and the technical complexities of climate and energy topics hamper journalists' ability to write with clarity, often raising more questions than answers.

To overcome this, news outlets should develop specialist desks and workforce and hire writers with the ability to explore the intersectoral links in climate and energy stories and reorientate towards more robust climate communication and solutions journalism. This will require funding commitment, if not internally, from external funding sources.

1. INTRODUCTION



The climate crisis is the "story of the century," James Fahn, global director of environment programmes at Internews, remarked, as the crisis reaches every level of society and economy "on a grand scale". Yet, mainstream media coverage today does not accurately reflect this. The gradual and ongoing nature of the catastrophe has gone largely unnoticed as greenhouse gases (GHG) continue to build up in the atmosphere.

The impacts of climate change are now becoming increasingly apparent, with scientists and the UN issuing a "code red for humanity" warning. These effects include record-breaking heat waves causing more wildfires and crop failures, which in turn exacerbates global food insecurity. Additionally, there have been unprecedented floods in many parts of the world, including Malaysia in December 2021 and Pakistan in the summer of 2022, causing devastating damage.

Governments are working to address climate change, but their efforts vary in urgency and effectiveness. This is happening while an escalating war in Europe is causing an energy crisis and hindering progress in keeping fossil fuels in the ground. The media plays a vital role in this effort serving as a bridge between scientists, governments, policymakers, businesses, other stakeholders and the public. Media helps to explain complex processes, provide context, build public support and trust for climate action, and ensure transparency and accountability--critical in this pivotal moment in modern history.

1.1 - Climate Action Amidst Political Uncertainties

News reported is usually a reflection of the statements, actions and policy decisions of the residing government, and more so in the context of Malaysia, where major political parties hold stakes in leading media companies, which means political stakeholders are still the primary arbiters of news. An ongoing political crisis has also usurped popular news since 2019. The 2018 14th general election (GE14) was a watershed moment in the country's political history when a new reformist coalition, the Pakatan Harapan, won power for the first time over the incumbent Barisan Nasional coalition.

In 2019, the new government passed 80 energy initiatives that were "seen as conducive to renewable energy growth," according to the report *Coal and Renewable Energy Reporting in Malaysia*¹ by Ili Nadiyah Dzulfakar by Climate Tracker and the Stanley Centre. A Climate Change Act was planned to be tabled by 2022. But from February 2020 onwards, Malaysia was gripped by a tumultuous period of political upheaval when the Pakatan Harapan government was unseated by political defections and manoeuvrings just as the Covid-19 pandemic was setting in. Two successive conservative governments followed in short order.

Amidst this turmoil, shortly after becoming the 9th Prime Minister, Ismail Sabri tabled the 12th Malaysia Plan (2021-2025), where Malaysia pledged to become "carbon neutral" by 2050 "at the earliest," with a target to cut the emissions intensity of GDP by 45% compared to 2005 levels by 2030 "unconditionally". (conditional means upon receiving climate finance, technology transfer, and capacity building from developed countries). This was followed by a wave of climate mitigation measures:

- a pledge for no more new coal power plants
- a renewable energy target of 31% of installed capacity by 2025
- developing carbon pricing mechanisms
- promotion of electric vehicles (EV)
- promoting payment for ecosystem services (or ecological fiscal transfer, EFT) and nature-based solutions.

Two months later, Malaysia announced a commitment to reach net zero emissions, including those from other GHGs such as methane, by the earliest 2050 at the UNFCCC COP26 in Glasgow in November 2021. This pledge makes Malaysia one of the most ambitious developing nations in terms of emissions reductions, in line with commitments made by developed nations. Only a few other developing nations have made similar commitments, as the UNFCCC typically places the responsibility for emissions reductions on developed countries (Annex 1 countries) which have contributed the most to historical emissions and have the accumulated financial and technological capacity to make such reductions. Malaysia's contribution to historical emissions is only 0.37% up to 2020.

1.2 - Unwanted Monsoon Elections to a Unity Government

The 2023 Supply Bill (also known as Budget 2023) was announced by Ismail Sabri's government on October 7, 2022. However, just a few days later, on October 10, 2022, Parliament was dissolved unexpectedly, nine months short of its full term. This triggered the 15th General Elections (GE15) to be held during the 2022 northeast monsoon (which occurs from November to March), which had caused severe damage in the previous year. The unexpected deluge in December 2021, a rare 1-in-100-year event, caused the destruction of homes, businesses and factories, took more than 54 lives and left an estimated loss of RM6.5 billion.

Various groups and individuals called for the 2022 "monsoon polls" to be delayed, but their requests were ignored. After two weeks of campaigning in heavy weather, polling for GE15 took place on November 19 with several constituencies

underwater. Even so, that saw no candidates campaigning specifically on climate issues (at least as reported in the media), despite the inclusion of 6 million new young voters aged 18-21, with the youth group highly concerned about climate change, according to a UNICEF survey in Malaysia (see Box 1).

The general elections resulted in a hung parliament. After a week of impasse, the leader of the reformist Harapan coalition, Anwar Ibrahim, became the Prime Minister of a unity government. In his first press conference as Prime Minister, Anwar Ibrahim committed to building a government based on good governance and will not tolerate graft and corruption under his watch. The new government's stance on climate change has yet to be announced at the time of writing. However, it is noted that the new ministry of environment has reintroduced climate change into its name: Ministry of Natural Resources, Environment and Climate Change (NRECC).

The Budget 2023 will be re-tabled in Parliament early in 2023, with potential revisions from the original version. However, for the first time, the October 2022 version of Budget 2023 included allocation for climate adaptation, flood mitigation, and water infrastructure projects worth RM700 million out of the total RM15 billion allocated for the next eight years until 2030².

1.3 - Climate and Media

While severe climate disasters like heat waves and floods grab headlines in 2022, they represent only a minor part of the larger climate catastrophe. The nuances and broader picture of climate change are complex and challenging for non-specialist journalists or a journalist on a general desk to grasp and cover. The uncertain risks, evolving international and national policies, and technical solutions by industries lack the sensational appeal of a "climate catastrophe event". This is a challenge faced by Malaysian journalists and journalists worldwide³ due to a lack of funding, data, and interest⁴.

National news outlets typically cover general climate news, while energy news is mainly found in the business sections of established media outlets (NST, The Star, Berita Harian, Utusan, Sinchew and Nanyang) and business publications such as The Edge Markets and The Malaysian Reserve. Digital and specialist online media without a strong focus on business news, such as The Vibes, Malaysiakini, and Macaranga, publish fewer energy and energy transition stories than climate-related articles.

As the ongoing Covid-19 pandemic demonstrates, reporting on complex topics is essential for building public trust. According to the 2022 Edelman Trust Barometer⁵ survey conducted during the decline of Covid-19 in Malaysia, health authorities saw a significant decrease in public trust compared to the previous year, assumed to be due to the government's perceived poor handling of the pandemic. The survey showed

that Malaysians least trusted the media and government compared to businesses and NGOs during this period. In an interview on the survey results by the health news website Code Blue, a senior journalist from Astro Awani alluded that one reason for the trust deficit stems from the media "failing to ask questions that are critical of long-term trends in poor governance in this country"⁶. This further demonstrates how media reports on the ongoing climate crisis will be just as crucial.

Surveys have shown that Malaysians, particularly the youth, have growing concerns about climate change, particularly after the floods of 2021 (see Box 1). The media plays a crucial role in shaping society's perception of climate change, yet a large gap remains in their representation of the crisis. Despite the broad scientific consensus on the climate crisis and global efforts to address it through UNFCCC, IPCC, and the Paris Agreement, media coverage of the crisis is not adequately conveying a sense of urgency. A survey by the Reuters Institute for the Study of Journalism⁷ in 2022 found that almost half of the respondents in Malaysia want to see more climate news in the media. For the media to effectively act as a bridge between policymakers, the corporate and business sectors, climate experts, those who understand the science and politics of climate change and the general public, it is crucial for them to gain public trust.

The media industry is undergoing significant changes, with traditional print news media struggling to maintain readership, sales, and advertising revenue in the face of the growing popularity of social media and new digital platforms. Over the past couple of years (2019-2020), the industry has seen significant changes, such as the temporary closure of Utusan (the oldest Malay language newspaper in the world, founded in 1939) and Tamil Nesan (one of the oldest newspapers in Southeast Asia, after 94 years of being in print). There was also major rationalising and restructuring of media companies, including Media Prima, the country's leading media group.

The state of press freedom in Malaysia has been a concern in recent years, with the country falling in rankings on the annual press freedom index compiled by Reporters Without Borders⁸. In 2021, Malaysia dropped to 119 out of 180 countries, and in 2022 slightly improved to 113 (albeit with a lower score) but still faced issues such as "prosecutions forcing the victims to incur huge legal expenses, police searches of media outlets, violations of the confidentiality of journalists' sources, and expulsions of foreign reporters or whistleblowers". The overall restrictive laws, censorship (internal and external) and harassment in Malaysia's media landscape have been widely reported⁹ and commented on¹⁰.

Given this background and developments, this research aims to assess the level of coverage and engagement on the topic of climate and energy transition by major news media outlets in Malaysia.

Box 1: Climate Change Perception Surveys

The results of surveys that have been conducted to gauge Malaysians' attitudes towards the climate crisis had seen mixed results, depending on factors such as the survey's design (e.g. timeframe) and the demographics of the respondents. In 2020, UNICEF, UNDP with EcoKnights surveyed 1,393 Malaysian youth respondents. 92% viewed it as a crisis¹¹, and 9 out of 10 young respondents were taking individual action to address the issue.

Interestingly, an online survey conducted by IPSOS¹² in July 2021 found that during a critical period of the Covid-19 pandemic in Malaysia and before the devastating floods of December 2021, Malaysians were least concerned about climate change but most worried about Covid-19. However, in a follow-up survey conducted in April 2022¹³ after the floods, Malaysia's ranking on climate change improved, going up four places, with 8% more respondents choosing it as one of their top three concerns.

The Reuters Institute for the Study of Journalism conducted a survey of news consumption in 2020, which included a question: "How serious a problem, if at all, do you think climate change is?". 70% of Malaysian respondents said climate change was "very serious" or "extremely serious". In a follow-up survey in 2022, in what should be positive news for media brands, 48% responded that they were interested in climate change news (in comparison, respondents in the Philippines registered the highest interest in South East Asia at 52%).



2. RESEARCH SCOPE, METHODS AND RESULTS



2.1 - Research Scope

This research focuses on energy transition and climate-related news published between June 2021 and November 2022 (although where necessary for discussion purposes, news before this period was included). As the general election was held in November 2022, the research team decided to include this in the research to determine if climate issues were raised by candidates in the lead up to the elections. After the floods of December 2021 and early 2022. This period also covers Malaysia's formal announcement for emissions reductions at COP26 in Glasgow in 2021 and the 2022 COP27 in Sharm El Sheikh, while the catastrophic floods of December 2021 occurred at the mid-point of this period. This period also covers the publication of IPCC's Sixth Assessment Reports: the Working Group I Climate Change 2021: The Physical Science Basis on 6 August 2021, the Working Group II contribution, Climate Change 2022: Impacts, Adaptation and Vulnerability, on 28 February 2022, and the Working Group III report, Climate Change 2022: Mitigation of Climate Change on 4 April 2022. This research will analyse how these key international climate events were reported in Malaysian news outlets and Malaysia's energy transition plans.

While the scientific consensus in the IPCC report agrees that reduction in GHG emissions is critical to limiting global warming between 1.5°C to 2.0°C, differing views have emerged regarding how Malaysia, a developing country with a small historical contribution of 0.36% of global emissions in 2021 (according to Our World in Data¹⁴ based on fossil fuels and industrial emissions), should balance investment between energy transition and climate adaptation (responses to the current and projected impacts to reduce national and local vulnerabilities), while also considering the international push for climate justice¹⁵.

Opening up the research question beyond energy transition reporting enables us to develop a baseline understanding of the broader narratives that Peninsular Malaysia's leading news media outlets are shaping on the climate crisis.

2.2 - Media Choice

The leading news media organisations in Peninsular Malaysia cater for the three majority ethnic communities in four main languages – Bahasa Melayu (BM, the national language), English, Mandarin and Tamil. We initially reviewed the online versions of traditional (establishment) print media in Peninsular Malaysia: The Star, New Straits Times and Malay Mail (English), Berita Harian and Utusan Malaysia (BM); Nanyang Siang Pau, Sin Chew Jit Poh, China Press and Oriental Daily (Mandarin); Malaysia Nanban, Makkal Osai and Tamil Malar (Tamil). In independent news media, we reviewed

The Edge, Malaysia's leading business and financial weekly and online news portals (some of which have versions in multiple languages), Malaysiakini, The Vibes, The Malaysian Reserve, The Malaysian Insight and Free Malaysia Today. We also looked at specialist environmental and sustainability website, Macaranga and Astro Awani online, which carries content in BM and English.

This study only examined articles that were available online from print and digital media, which could be easily accessed through keyword searches on the media outlets' websites or using Google site search. Broadcast media like Bernama TV, Astro Awani, TV3 and RTM were excluded as analysing them would have taken significantly more time and resources, which were not available.

2.3 - Media Content Analysis

For content analysis, we employed a manual content-coding method, using Excel sheets to systematically record the content of news articles to identify key themes and patterns. This included information on the section in which the news was located, the type of climate impact discussed, the type of renewable energy mentioned, climate or energy policies discussed, and the framing of these issues (supportive, negative, or neutral). Additionally, we also identified the sources of information or opinion in the articles. We used the coding parameters used in the Climate Tracker and Stanley Centre 2020 research on energy transition as a starting point and amended the variables to reflect our particular focuses. The [Excel sheet](#) used for this analysis is available in the online report.

To gather the relevant news articles for our research, we used keyword searches on the archives of news websites based on the scope of our study (e.g. climate change, UNFCCC, IPCC, COP 26/27, renewable energy, coal, solar, low carbon, net zero, etc.). We sampled as widely as possible between the period June 2021 to October 2022 (for Mandarin news, the sampling period was between June 2021 and August 2022). The content of the sampled news articles was analysed using standardised coding sheets for BM, English, and Mandarin languages. However, Tamil news was not included in the analysis after discovering that archived news is unavailable online through leading Tamil news media websites.

The primary sources for our coding exercise were the following online news media outlets: for English, The Star and the New Straits Times; for BM, Berita Harian and Utusan Malaysia; for Mandarin, Nanyang Siang Pau, Sin Chew Jit Poh, and Oriental Daily. We also included independent digital media outlets such as Malaysiakini and The Vibes and two independent business news media outlets, The Edge and The Malaysian Reserve.

This study did not include news articles from regional and international news wire agencies, even though many of the news media outlets we reviewed republished many climate-related stories from these news wires. However, news republished from Malaysia's national news agency Bernama in the media sampled was included to demonstrate the overall coverage of the topic by Malaysian media outlets.

According to the Reuters Institute Digital News Report 2022¹⁶, the primary news sources in Malaysia today are online news and social media. The decline in print media was notable, with only 17% of Malaysians surveyed in 2022 stating that they read print media (in 2021, it was 45%). The report ranked Malaysiakini (subscription-based), Astro Awani (produces broadcast and free-to-access online video news content), The Star Online (subscription-based) and Berita Harian online (free-to-access) as the top four online news media in terms of weekly use and trustworthiness. However, only the first three were considered for coding in this study, as Astro Awani's structure primarily focuses on broadcast and video news rather than online articles. This is in addition to the other news outlets mentioned in the paragraphs above.

2.4 - Media Interviews

Reporting critically on climate and energy transition requires a working knowledge of not just climate science. It also needs an analysis of the historical and equity issues, the national and international laws, policies, and governance surrounding it, and the fast-developing world of "climate solutions" while navigating global climate politics. It poses a challenge for many newsrooms. Parallel to this research, the Lensa Iklim workshop series for journalists, a series of five workshops from 18th June to 13th August 2022, explored these issues. The research team attended the workshops and gained preliminary insights into the challenges the participating journalists face in reporting climate and energy, for example, data inaccessibility, lack of funding for long-form investigative reporting, and inadequate climate literacy.

One-on-one interviews with journalists and editors were conducted between September to October 2022, following a preliminary analysis of coded data to gain insights into how media organisations approach climate and energy transition reporting challenges. The interviews included journalists and editors who specialise in environmental reporting, but most are generalists who have reported on environmental, climate or energy stories. The research team reached out to 38 individuals; seven declined, 15 agreed, and the rest did not respond. The research ultimately interviewed eight journalists and seven editors. Thirteen of these interviews were conducted over Zoom, and responses were transcribed, while two others returned written replies to our standard questionnaires. Due

to the ongoing Covid-19 pandemic and media focus on GE15, arranging more interviews was not possible.

Two sets of standard questionnaires were created, one for journalists and one for editors, sent ahead of the scheduled interview, with additional questions for specialist media as appropriate. The Zoom interviews were recorded and transcribed. The questions covered topics such as:

1. The process of pitching and assigning news related to climate and energy.
2. The journalist's perspective on the state of climate and energy transition reporting within their media organisation and in Malaysia as a whole.
3. How the media organisation handles and prioritises news related to climate and energy transition, including any challenges or barriers to more impactful reporting.
4. The challenges faced by journalists in reporting on climate and energy transition and suggestions for improvement.
5. Accessibility and availability of data and sources.
6. Initial findings from the sampling exercise including the need for more intersectionality in climate and energy reporting and the potential for greenwashing in reports.
7. What changes they would like to see in climate and energy transition reporting, and what support might be needed for this development.

2.5 - Result: Data Analysis

In general, almost half of the climate and energy transition news sampled was hard news, and the next largest category (19%) was opinion pieces by columnists. Features and investigative stories on climate and/or energy accounted for around 10% of the sample, mostly in specialist media, where the stories were funded by grants. The exception to this were the business sections and a business daily, where regular features and analysis of environmental, social, and governance (ESG) topics were featured in monthly ESG pullouts.

2.5.1 - Whose Voices are Heard Most?

As illustrated in Figure 3, 18.9% of the news articles analysed cited scientists or scientific reports as their primary sources. In comparison, only 7% cited local people and communities in Malaysia, and 9.9% cited NGOs and/or international organisations as sources. The largest percentage, or 33%, had politicians and government spokespersons as their primary sources, while almost another third (31%) used industry stakeholders as their primary sources of information.

In other words, two-thirds of the articles sampled had politicians, government, and industries as their primary sources of information. This indicates that politicians, government, and industries are still prominent in shaping the narrative on climate and energy transition, while the voices of local communities are underrepresented.

As shown in Figure 4, the majority of the news media articles analysed only cited one source. This supports the journalists' view that climate and energy transition reporting often presents a one-sided perspective. It is worth noting that the articles with no sources are mainly written by columnists, most of whom are industry experts or have scientific backgrounds.

Gender-wise, the male voice predominated in media articles. Where the sampled reports cited a person as a primary source, only 18% of them were female. This percentage was even lower in business-related news, with only 10.7% of primary sources being female.

2.6 - Discussion

This research looked broadly at the climate crisis through two lenses. First, on climate reporting, to ascertain the width and depth of the media portrayal of climate issues, and second, on its coverage of energy transition (i.e. climate mitigation).

Although our research compiled an almost equal number of what we characterised as climate or energy stories, the number of energy stories outweighed the climate articles. This is because energy stories were captured from the business sections of newspapers, while climate stories were more widely covered across different sections. The energy stories reported in the business sections were primarily straight or hard news about launches, projects, financials and other business aspects of the energy industry, including fossil fuels and renewables. Articles, commentaries and features that discussed renewable and emerging energies and technologies (e.g. hydrogen and CCS) and carbon markets were captured as much as possible.

Solar was the most covered topic in energy transition news, making up two-thirds of the articles on renewable energies. Most of the energy-related articles analysed did not focus on just one energy source but discussed a mix of renewable and fossil fuels. For example, many articles on TNB and Petronas – the largest government-linked stakeholders in the energy industry – usually mention RE and fossil fuel energy in terms of their energy transition goals and diversification towards renewable and low-carbon energy sources. Therefore, a direct quantitative comparison between articles on renewable versus fossil energies was challenging to make. Generally, a typical hard news article on an energy project in the business section may not mention energy transition unless it is about RE or, occasionally, hydrogen.

Climate news made up 46.7% of the articles analysed and mainly focused on general climate issues such as the causes of climate change, factual reporting, coverage of climate conferences like COP26, scientific reports like IPCC, and climate impacts. A significant portion of the news analysed was dedicated to flooding, particularly in the aftermath of the December 2021 floods in Peninsular Malaysia. Additionally, issues related to food security have been appearing more frequently, especially in recent months when food prices have risen. However, climate news is often reported as hard news and is primarily singled-sourced by politicians, government representatives, or government bodies.

The following sections examine the media portrayal of critical topics on Malaysia's current energy transition journey, i.e. fossil fuels, renewable energy, and issues surrounding national and corporate net zero carbon emission targets, as well as the leading climate topics in media coverage. The research also discusses areas that received less coverage concerning energy transition and climate. Efforts were made to cover as many relevant topics as possible within the constraints of time and resources; the list of topics covered is not exhaustive.

The research provides brief explanations of technical topics such as carbon capture and storage (CCS), climate finance, and the Paris Agreement that may be unfamiliar to a general audience. It also aims to provide a broader context for commonly used terms such as "net zero." The sections analyse the news coverage of these topics, including the level of coverage, the way the issues are presented, and any gaps in coverage that have yet to be explored.

2.5 - Result: Data Analysis

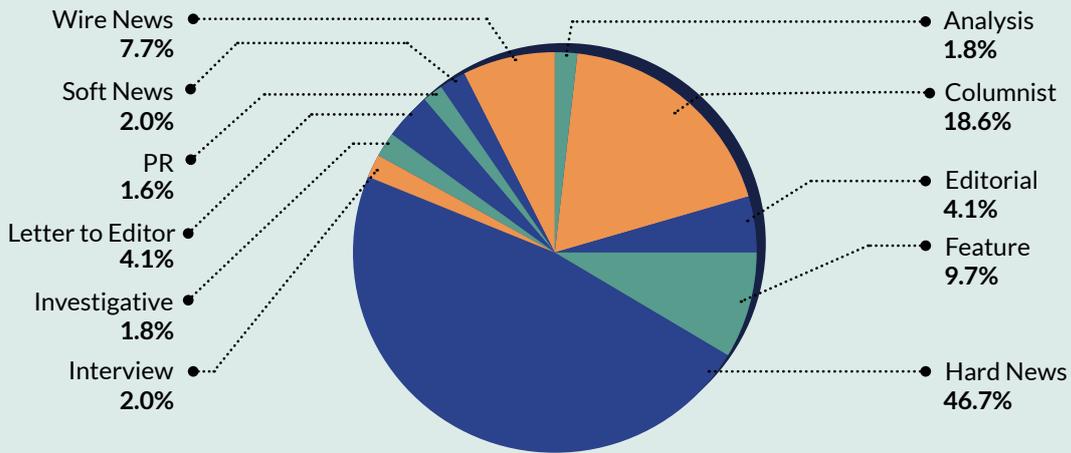


Figure 1: A representation of the types of stories in the articles from our analysis.

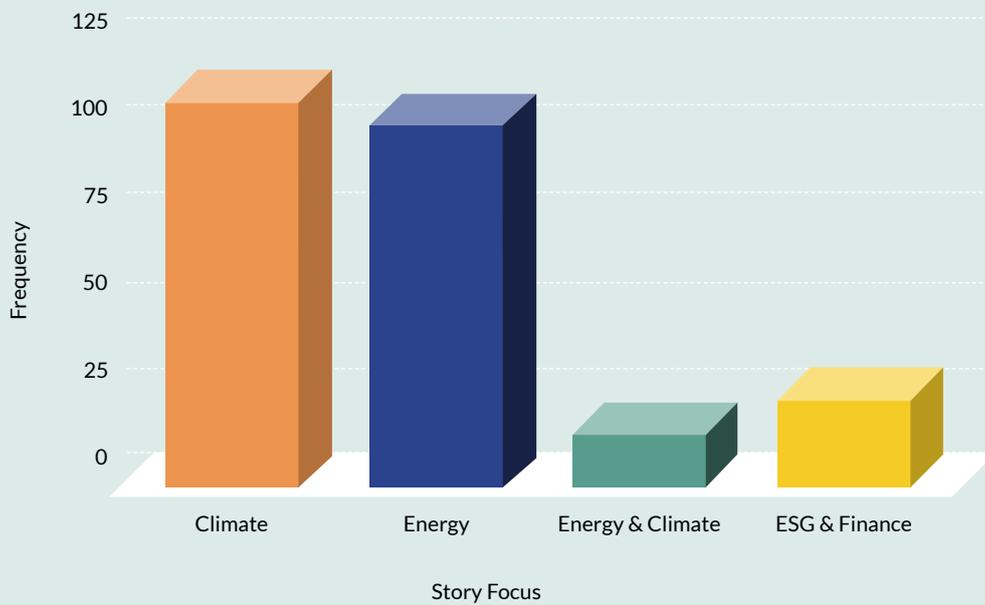


Figure 2: A representation of story focus in the articles from our analysis.

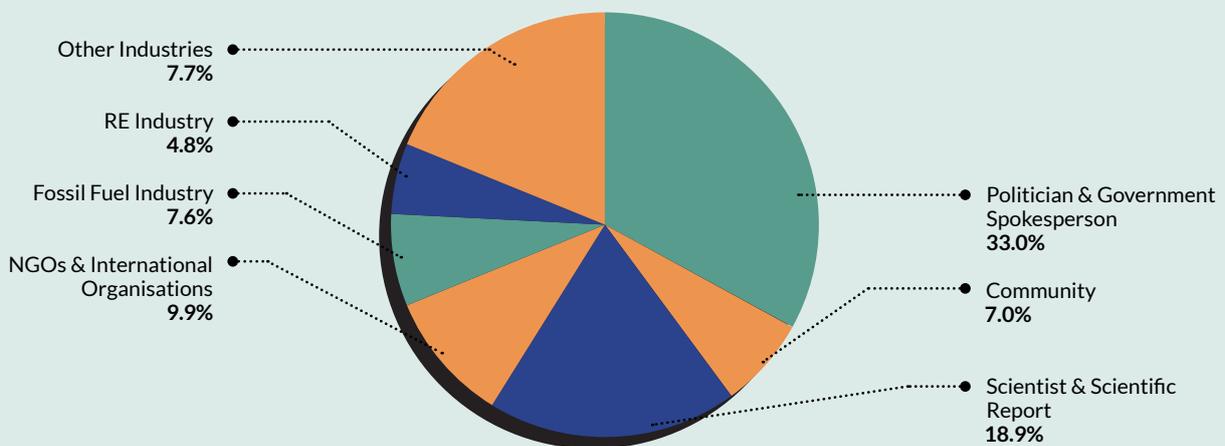


Figure 3: A representation of the types of sources cited in the articles from our analysis. These figures included 52 articles by columnists.

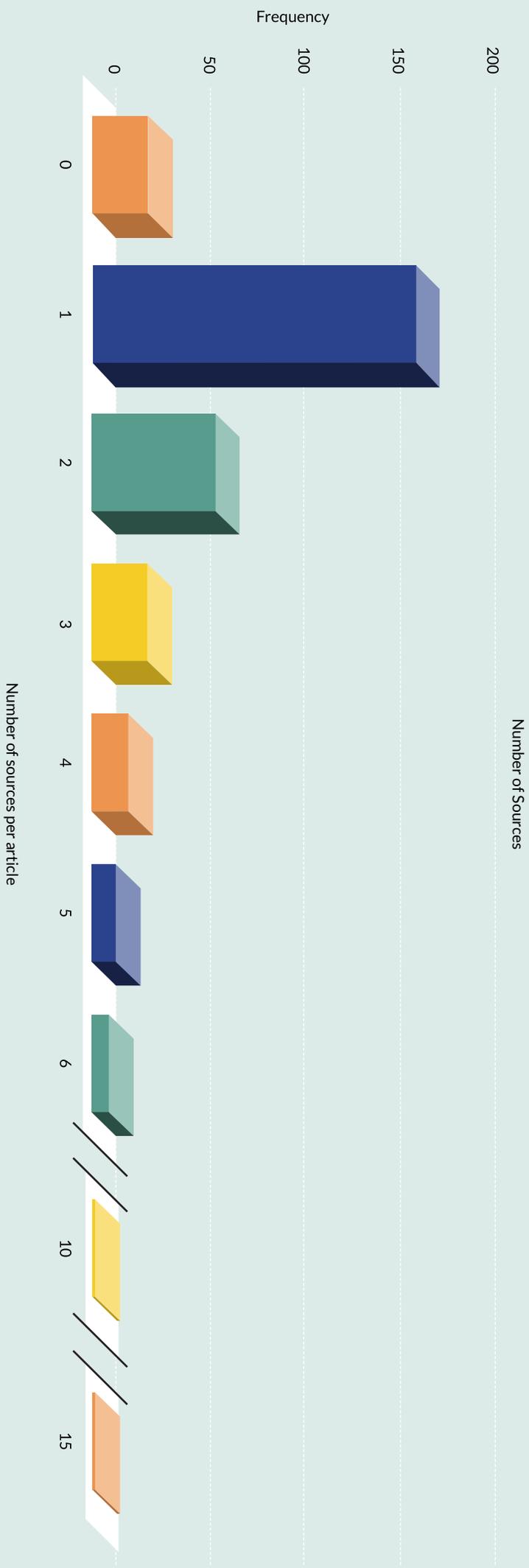
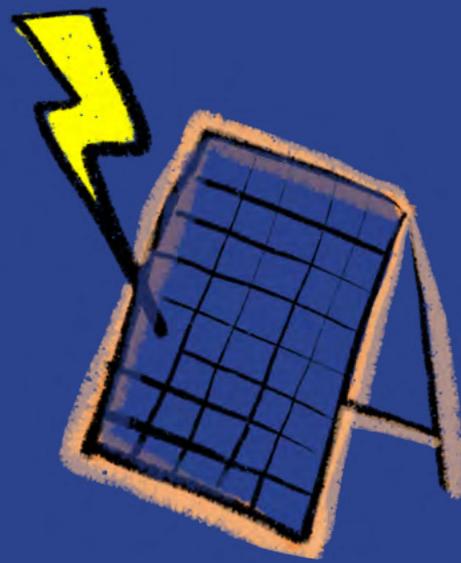


Figure 4: A representation of the number of sources cited in the articles from our analysis. These figures include 52 articles by columnists.

3. ENERGY TRANSITION



In Malaysia, approximately 80% of greenhouse gases come from the energy sector, which is dominated by coal and gas. The energy transition is officially framed within the boundaries of the energy trilemma. In official government policies such as the National Energy Policy 2022-2040 (NEP2022), the sustainability concept of the trilemma focuses on the environment and, more specifically, climate impacts. The following sections review the main issues around energy transition in Malaysia and how the media cover these.

The Energy Trilemma is a concept that balances three main goals: ensuring that energy is affordable to all Malaysians (energy equity), ensuring a reliable long-term supply of energy sources (energy security), and considering the environmental impact of those energy sources (energy sustainability).

3.1 - "Net Zero"

Halting the expansion of fossil fuel extraction and use is the key to limiting global average temperature increase under 1.5°C relative to the pre-industrial levels. To achieve this, the IPCC Fifth Assessment Report stated that net additions of anthropogenic carbon dioxide to the atmosphere must reach zero by mid-century. The term net zero, at its simplest, refers to the state where GHG emissions from human activities – particularly by the combustion of fossil fuels – are balanced out by their removal from the atmosphere by carbon sinks like forests and other natural ecosystems. While this may sound simple in theory, it is a more complex issue in practice.

According to a review of scientific literature, there may be a limit to how much carbon natural ecosystems can absorb¹⁷. There are hard-to-abate sectors that rely on fossil fuels: iron, steel, cement, and plastics, which together account for 30% of annual global carbon emissions. To model possible scenarios to achieve net zero, modellers began to use carbon capture technologies in their economic-climate models "to find viable pathways" to avoid dangerous climate change. By the time the Paris Agreement was adopted in 2015, carbon capture technologies had remained untested and prohibitively expensive. However, the viability of the 1.5°C target was predicated on models that include the use of these premature technologies. The former chair of the IPCC, Robert Watson, and his co-authors publicly scrutinise the concept of net zero in a commentary, stating that "in practice, it helps perpetuate a belief in technological salvation and diminishes the sense of urgency surrounding the need to curb emissions now"¹⁸.

According to the United Nations¹⁹, the term net zero is now used widely, with many countries having set national net

zero goals estimated to cover about 76% of global emissions. Businesses, financial institutions, asset managers, and cities are increasingly adopting net zero targets and actions to reduce their emissions to meet national goals.

3.2 - Net Zero in Malaysia

Under the UNFCCC and the Paris Agreement, the responsibilities for emission reductions of developed and developing countries are unequal. The principle of common but differentiated responsibilities (CBDR) is understood as developed nations are expected to take the lead in reducing their emissions based on their higher historical emissions and greater financial and technological abilities to invest in reducing greenhouse gas emissions. Meanwhile, developing countries are expected to maintain their development pathways and poverty eradication goals.

As a developing country, Malaysia is not obligated to adopt stringent targets under the principle of common but differentiated responsibilities. However, the government has set a goal for Malaysia to achieve net zero carbon emissions by the earliest in 2050, which aligns with many developed nations. It is not a theme well explored by the media, but a few published commentaries question this approach. While Malaysia may have set carbon-neutral intentions into planning and policy documents such as the 12th Malaysia Plan, these promises and plans are not matched with statutory targets or legally binding mechanisms.

Net zero targets have also been pledged by a growing number of Malaysian corporations, which has led to increased media coverage of these commitments, often without critical examination. As concerns about "greenwashing" (the sharing of false or misleading information on products, services, or business operations to appear environmentally responsible) have risen, several media outlets, such as The Edge and the business section of The Star, have published features on what greenwashing is and how to identify it. While mentions of net zero in news reports are often reported at face value, a handful of news articles have sought out interviews with civil society and NGO sources that provide more nuanced and critical perspectives on the concept of net zero. An NGO described it as "a licence to keep polluting"²⁰ rather than taking more difficult actions to reduce carbon emissions from the most polluting industries.

Apart from these civil society voices offering differing viewpoints on Malaysia's net zero goals, also notable were the few commentaries by columnists from think tanks and universities who questioned the suitability of emerging economies such as Malaysia adopting concepts driven from developed economies, effectively asking – what would an equitable transition look like for Malaysia? And as a climate-

vulnerable nation, what climate action route should Malaysia take as a priority, nationally and internationally? These discussions are still in the early stages in the media. A report by the Khazanah Research Institute (KRI) in 2022 argues that instead of focusing on net zero targets, Malaysia should prioritise climate adaptation strategies and pursue steep emission reductions and climate finance from the world's major polluters. Aside from a few preliminary commentaries in *The Edge*²¹ and *NST*, this discussion has yet to cross into mainstream media²².

3.3 - Coal and Gas: To Stay or Go, or Both?

Most of the focus on national climate action has been on climate mitigation. Hence, the plan to shift Malaysia's fuel sources gets traction in the news. Tenaga Nasional Berhad (TNB) dominates the energy sector, the sole utility providing electricity in Peninsular Malaysia (Sabah and Sarawak have their own electricity providers), and the national oil company, Petronas. TNB and other independent power producers (IPP) that own and operate power plants also play a significant role in power generation. TNB owns and operates power plants that generate over half of the country's electricity needs; most of these are coal-powered. Malaysia is a small coal producer (3.5 million tonnes in 2018), where most coal is produced and used for power generation in Sarawak. As a nation, Malaysia has become highly reliant on coal for power generation²³ in the last two decades, although Malaysia is a producer and net exporter of oil and gas. Coal is mainly imported from Indonesia and Australia, most of which (94%) is burned for power generation, and the rest are for industrial sectors such as cement, iron and steel. Coal made up only 12% of the country's energy supply in 2007 but has since grown to 40% of the energy mix today. Malaysia's coal power stations have a total installed capacity of 13,000 megawatts, with two new ones coming online in 2019 - the 1000MW Jimah East Power in Negeri Sembilan and the 300MW Balingian 1 in Sarawak.

The media has reported on the lack of a clear commitment from the government to stop using coal for power generation in Malaysia, as written in a column in *NST*²⁴. Despite policy statements supporting low carbon growth in government planning documents such as the 12MP²⁵ and the NEP that states there will be "no more coal power plants," it was announced that the government will only stop building new coal-fired power stations by 2040. This has led to confusion and criticism from energy market analysts, as reported in several media outlets in August 2022. An earlier energy planning document, *The Peninsular Malaysia Generational Development Plan 2021-2039*, outlined plans to add 2.8GW of new coal capacity²⁶ by 2037. Building new coal-fired power plants would put the country at risk of "carbon lock-in," as the *NST* columnist writes, "where stranded assets from high

carbon regimes halt progress towards a low carbon energy system and eventually inhibit the transition to a sustainable energy future". As new coal power plants built in the 2030s could have an operational life into the 2070s (more than 20 years beyond our stated national net zero goal), it will be potentially costly to the public purse if, for any reason, they are to be decommissioned early. The media has reported on these conflicting statements but has not attempted to clarify them.

In contrast to reports of the government's ambiguous commitment to ending the use of coal for power generation, there are news articles about TNB's plan to retire coal-powered plants, to be repowered with either gas or hydrogen. For example, the 1,400MW coal-fired Kapar Energy Ventures will be retired in 2028, a year earlier than its PPA (Power Purchase Agreement), or replaced with RE plants, as reported in *The Edge*. Eight power plants, totalling 3.37GW, will be retired between 2021-2025, according to the Report on Peninsular Malaysia Generation Development Plan 2021-2039. TNB has also widely promoted its aspirational target of net zero carbon emissions and coal-free targets by 2050, with plans to retire the Jimah East coal plant commissioned in 2019 by 2044²⁷.

In addition to mainstream media attention on the corporate and business aspect of the coal industry, the increase in coal prices was featured in slightly more detail. Despite the rise in cost, Malaysia committed to coal imports from Indonesia worth US\$3 billion in May 2022, securing a steady supply of fossil fuel for the next three years. Despite the global hike in coal prices, it was reported that TNB would not be raising the electricity tariff surcharge up to December 2022, and the government is reportedly "committed to taking on RM5.8 billion in subsidies" to make this possible. *The Edge* also looked into the financial implications of the rising coal prices for TNB. According to TNB, the cost pressures for thermal power plants will decrease as more renewable energy is incorporated into the grid, as it does not incur any fuel costs.

Malaysiakini published a three-part special project feature on coal, casting as wide a view of the coal industry as possible, from mining to social and environmental impacts, including carbon emissions. The article remains one of a few media articles sampled that touches on the fact that the Malaysian emissions reduction target relative to the 2005 emission will see Malaysia emitting more carbon than actually reducing carbon emissions by 2030. A commentary by Malaysian-based scientists was also published in the *Vibes*²⁸, highlighting the same. The Malaysiakini articles provide an in-depth look at stakeholders in the coal industry, including government-linked companies (GLCs), national and international corporate players involved in the coal supply chain, and the banks that finance them. The analyses of where power resides and

money flow shed light on the major coal players in Malaysia. It also included voices from across the divide (prominently; activists and opposition sources) to show the complexities of the current situation where the use of coal is still expected to "feature prominently in the next two decades."

The media portrays the future of coal in Malaysia as uncertain, despite some financial institutions distancing themselves from coal financing and TNB's efforts to replace coal-powered plants with lower carbon and renewable energies. The media often presents a negative view of coal in relation to net zero targets but presents it positively in a business context. However, industry reports indicate that coal is still expected to play a big role in Malaysia's energy mix in the next two decades "due to its lower forecasted price"²⁹. Coal in installed capacity is expected to decrease from 42% in 2020 to 22% in 2039, but its contribution to the energy mix is projected to increase (67% in 2025) before decreasing again in the future (51% by 2030, and 29% by 2039), with gas as the dominant energy (58%) and renewables expected to contribute just 13% of the total energy mix.

When looking at Southeast Asia, the signs of transitioning from coal are clearer. Indonesia, at the G20 conference in Bali, secured the Just Energy Transition Partnership (JETP) to raise US\$20 billion (RM88.25 billion) to accelerate Indonesia's energy transition from coal³⁰. As they are a primary source of coal for Malaysia, this could pose a risk to Malaysia's energy security. Vietnam has also been offered a US\$15.5bn package of a mix between public funding and private finance to accelerate the transition from coal to renewable energy over the next three to five years.

Aside from the business and future of coal, specialist environmental news site Macaranga and Malaysiakini have looked into the human and environmental costs of coal power generation. A two-part series by Macaranga in December 2021 detailed how coal became a primary energy source in Malaysia, from just 7% of the energy mix in 2000 to 43% of our energy supply in 2021. Coal is cheap and it is economical to keep energy prices low while prioritising gas exports. However, the social and environmental impacts, well studied globally, have never been researched in depth in Malaysia. Macaranga interviewed fisherfolk who live and work in the vicinity of coal power plants whose livelihoods had been affected since the plants' commissioning³¹. As the population of fish, prawns and crabs plunged, fishing communities lost their livelihood, and some received compensation from power plant operators. This is an explicit admission that the plants have negatively impacted the seas around them and, thus, the livelihood of the local fishing community. The article also discussed the health impacts on individuals living near coal-powered plants. Despite a lack of research on the topic in Malaysia, the article

highlighted two studies that found high levels of inhalable coal dust and the release of hazardous trace elements in the air near the Manjung site in Perak and the Balingian coalfield in Sarawak. These communities link their health issues, such as skin problems, tuberculosis, asthma, cancer, and birth defects, to the pollution caused by coal combustion.

The external costs of energy sources, such as social and environmental impacts, are often overlooked in financial and business reporting. These factors are essential in determining which energy sources a country should transition to, but they are often only discussed in-depth in long-form or special feature articles rather than being a regular part of the news.

Notably, the examination of external social and environmental costs by these two series was made possible by grant funding. As a specialist media, Macaranga's business model depends on grant funding for its in-depth investigative journalism focused on environmental and sustainability issues. This highlights that many under-resourced newsrooms (financial and human resources) and even established newsrooms in Malaysia rely on grant funding to support long-form and investigative journalism, data journalism, and data-driven projects.

3.4 - Natural Gas on the Rise

The media presents the clear transition from coal to natural gas positively, as natural gas usage is rising due to an all-time high global trade on the back of post-pandemic recovery and European efforts to reduce reliance on Russian energy imports. Today, the media commonly portrays natural gas as critical and necessary for global energy security and economic stability. However, a study by the International Institute for Sustainable Development (IISD) found that developing new oil and gas fields is incompatible with limiting global warming to 1.5 degrees Celsius³².

In 2021, Malaysia was the fifth largest exporter of liquefied natural gas (LNG), exporting 24.9 million tonnes per annum (MTPA), representing 6.7% of global trade, primarily to China, Japan, and South Korea. Domestically, natural gas is a significant energy source, making up 41% of the total primary energy supply (TPES) compared to coal (22%) in 2018. Furthermore, natural gas contributed the highest proportion of total electricity generation capacity in 2018³³, with 14,735 MW (44%), compared to coal's 10,489 MW (31%).

According to the Energy Commission's 2020 report, natural gas is projected to expand significantly in the coming years. The installed capacity for natural gas is expected to rise from 40% to 47% between 2020 and 2039 and is projected to dominate the energy mix, from 25% in 2020 to 58% in 2039. The 7th ASEAN Energy Outlook³⁴, which examined various scenarios for energy development in the region, predicts that

gas consumption will not decrease between 2020 and 2050 due to growing energy demand in the region, as reflected in the NEP.

The NEP, which includes the Low Carbon Nation Aspiration 2040 plan (LCNA), was released in September 2022 with moderate media attention. The LCNA has set sectoral targets for net zero emissions by 2050 and significantly emphasises utilising natural gas to achieve this goal. The media coverage of the policy was generally positive, highlighting the potential positive impact on Malaysia's GDP through the growth of the green energy sector. The Malay Mail specifically focused on the critical role of natural gas in the energy transition and how the local LNG industry will benefit, with the Malaysian Gas Association stating that "at least half of the initiatives outlined will have a significant impact on the demand for natural gas." There was minimal critical commentary in the media regarding the NEP/LCNA, with only one outlet, *Berita Harian*, providing general recommendations for its implementation, such as reskilling in green jobs and pursuing energy efficiency across all sectors. Although natural gas is a lower carbon fuel than coal, it still emits carbon and expanding its use as planned up to 2040 and beyond raises the question of how emissions will be dealt with in light of Malaysia's goal for net zero in 2050.

A discussion on gas production is incomplete without carbon capture and storage (CCS) technology. The media coverage of CCS or CCUS (carbon capture, use and storage) mostly pertains to the production and utilisation of gas and/or hydrogen production by Petronas, TNB and other energy industries, with a strong focus on developments in Sarawak. A few articles indicate that plans are afoot to make Malaysia a CCS hub, with the Petronas Carigali Kasawari Phase 2 project in Sarawak leading the way with what is said to be the world's largest CCS facility, set to begin operations in 2025. This project aims to capture 4 million tonnes of carbon dioxide annually, a total of 76 million tonnes over its lifetime. A second CCS facility in Sarawak is also in the works. Complementing this were news reports that Sarawak has amended its land laws to regulate land use (offshore and onshore) to accommodate carbon storage developments, the country's first such amendment. Sarawak is expected to generate carbon credits worth approximately RM3.5 billion per year from CCS activities³⁵. However, it is worth noting that these articles made no distinction over the three emission scopes (as per the Greenhouse Gas Protocol). For example, CCS captures CO₂ released during gas production, known as Scope 1 emissions and does not cover the carbon emissions from the final use of the gas across the supply chain, known as Scope 3 emissions³⁶.

Unreported in any media searches, the proposed Budget 2023 includes several tax incentives for CCS technology. The Energy Voice newsletter, quoting KPMG, "companies undertaking

CCS in-house activity will be eligible for an investment tax allowance of 100% for ten years to set off against 100% of statutory income. As well as full import duty and sales tax exemption on equipment for CCS technology from 1 January 2023 until 31 December 2027"³⁷. However, there was no reporting on these incentives in the local media samples, explaining CCS technology in more detail through a climate-oriented lens.

According to an article in the energy news website Upstream, more than an estimated 46 trillion cubic feet of potential carbon storage capacity has been identified across 16 of Malaysia's depleted gas fields, "which is more than ample for the nation's forecast upstream CO₂ emissions." Most of these sites are offshore Sarawak, with five offshore facilities in Peninsular Malaysia. According to a columnist in Upstream, these CCS projects are needed because Malaysia has "tens of trillions of cubic feet of sour gas resources that it needs to exploit using CCS to meet domestic demand and to fulfil its term contracts with North Asian liquefied natural gas customers,"³⁸. Besides being sour gas (i.e. gas high in hydrogen sulphide content), much of Malaysia's gas has high carbon dioxide content of 20% and 70%. It was claimed that "by 2030, half of Sarawak's gas output and 15% of Peninsular Malaysia's production will come from high-CO₂ fields," making CCS a priority³⁹. The national oil company Petronas has high stakes in developing and leveraging CCS. The investments, developments and tax allowances surrounding CCS suggest gas will continue to play a significant role in the region's energy mix in the future.

In the analysis, articles in the business section primarily focused on hard news and portrayed gas as a positive transitional fuel, but an examination of the impact of its use has been absent. The positive framing of gas matched that of other global gas producers lobbying to "rebrand gas as a transitional fuel and not fossil fuel," as a headline in the Guardian⁴⁰ suggests.

Only a handful of media articles quoted sources cautioning on the role of gas in Malaysia's future energy mix, for example, in the *Malaysiakini* series on coal. These articles highlighted concerns such as methane leakage during production and transportation and the lack of evidence from existing CCS projects showing the effectiveness of the technology. For example, there have been reports that large-scale CCS has failed to meet its emissions reductions targets, such as the Gorgon CCS project in Western Australia, which fell short by as much as 50% (and the shortfall has to be made up by the purchase of carbon credits⁴¹). These gaps were not explored in an in-depth analysis across the Malaysian media, either by leading media outlets or specialist media. Apart from the integrity of the CCS technology deployed, there needs to be more coverage on the industry's regulation and monitoring, the proportion of GHG gases expected to be captured and

stored, and the potential impacts of any shortfalls. Much is unknown about Malaysia's rationale for its energy transition priorities due to the absence of media coverage on these critical issues. Is the country investing more in gas and CCS technologies than renewables?

In the latest energy sector development in December 2022, Petronas announced it had signed an agreement with the Abu Dhabi National Oil Company (ADNOC) for its first concession in the UAE to explore and appraise resources in an unconventional onshore block covering 2,000 square kilometres in Abu Dhabi's Al Dhafra region. "Unconventional" refers to sources of hydrocarbons that are technically more difficult to access or extract. If the appraisal is successful, the companies will enter into a 30-year concession. The mainstream media reported the news positively, highlighting the deepening ties between the two countries. Only The Star briefly mentioned the energy transition, "It could become part of Petronas' investment to help secure energy security for Malaysia and look at opportunities for growth despite their increasing emphasis on the energy transition"⁴². The Star also referenced a previous agreement between the two parties to pursue clean energy and renewable energy projects and research and development in CCUS and hydrogen⁴³.

3.5 - High on Hydrogen

In the media's business pages, hydrogen is often portrayed in a positive light, with thirteen percent of energy-related articles mentioning or discussing it. Despite some columnists addressing the challenges of hydrogen energy, the overall framing is optimistic. The articles examine the different types of hydrogen as a fuel source and its significance in the decarbonization of the energy system, its potential for export, and the industries that may benefit from its use, particularly those with difficult-to-abate emissions such as cement, steel, and heavy transportation sectors.

Large corporations were featured heavily in the corporate news on hydrogen, with its biggest players seeking to expand the role of hydrogen in the energy sector. TNB is considering hydrogen co-firing power plants in the future for the Peninsula (framed as the "fuel in waiting"), while the Sarawak Economic Development Corporation (SEDC) has plans for Sarawak as a hydrogen hub in the region.

Columnists also emphasised the need for green hydrogen over blue hydrogen. Aside from its related upstream emissions factor, the generation of blue hydrogen from methane would require expensive CCS technologies to reduce carbon emissions, which the Institute for Energy Economics and Financial Analysis (IEEFA) report describes as a "financial, technical and emissions-reduction framework that continues to overstate and underperform"⁴⁴.

The media spotlighted Sarawak, with research and development efforts focused on downstream technologies such as sustainable aviation fuel based on hydrogen fuel cells. News reports also covered partnerships between Sarawak Energy and SEDC with South Korean and Japanese companies to develop hydrogen plants in Bintulu for export.

Large GLCs and state interests drive the narrative in the media, and there was minimal coverage of the bigger picture of hydrogen in Malaysia. One commentary by local researchers, published in The Edge, questioned if Sarawak has enough power from the current network of dams to support large production volumes and if large hydropower is truly green, stating some poorly planned hydropower plants can have emissions far exceeding those of coal plants. The authors also called for improving transparency and communication of hydrogen development plans⁴⁵.

Box 2: Summary: Coal, Natural Gas and Hydrogen

Coal and gas news is typically reported in the business sections of media, with short, digestible content or hard news that covers events, launches, and announcements by corporations and the government. There needs to be more analysis of the broader social, environmental, and economic effects of increasing the use of gas as a transition fuel.

Although there has been widespread media reporting on the targets to wean off coal, the government has not announced statutory targets. In fact, the government's signal on this issue appears to be conflicting, as plans to add 2.8 GW of new coal capacity in the 2030s have been reported, despite plans to replace or repower old power plants with more efficient ones that use combined cycle gas turbines (CCGT) and hydrogen.

The media focus on CCS investment by the gas industry, and the increased role of gas in the NEP (83% of the energy mix projected to still be from fossil fuels in 2040) suggests that while some major players such as Petronas, TNB and IPPs are investing in low-carbon and renewable energy and hydrogen, the transition period will be long. The impacts of the amendments to Sarawak land laws to accommodate projected CCS activities are not yet known for the lack of details and analysis, and existing disputes over native customary rights (NCR) land in Sarawak remain unresolved⁴⁶.

Box 3: Use of Energy Terms

Total Primary Energy Supply (TPES) and Installed Capacity, What Gets Reported?

The reductions in the fossil fuel mix in the Total Primary Energy Supply (TPES), as projected in the LCNA, are relatively small for oil and petroleum products (3%), gas (2%), and coal (3%), projecting an overall decline of 10% from 93% (2018) to 83% (2040).

Similarly, the corresponding increase in the renewable energy mix in the TPES is modest, with hydropower making up the largest portion of the renewable energy mix, up from 3% to 9% of the primary energy mix of 2040, and bioenergy and solar marking the largest increase by 7% to 8%. All of this will make up 17% of the total renewable energy mix in 2040.

In contrast, the installed capacity of renewable energy is projected to rise to 31% by 2025 and 40% by 2035. This installed capacity is frequently reported in the media, but it should be noted that installed capacity refers to the maximum amount of energy that a power plant can generate under ideal conditions but these plants rarely, if ever, run at their rated maximum capacity.

Therefore, the portion of renewable energy in the total energy mix projected for 2040, which is 17%, is less

than half of the 40% projected in installed capacity. Fossil fuel-based power plants might make up 60% of installed capacity, but in reality, coal, oil, and gas will still contribute 83% of Malaysia's total energy mix in 2040.

These projections suggest that Malaysia may not be quick enough in decarbonizing its power generation by 2040, despite news articles indicating that TNB targets net zero in its power generation by 2050.

Malaysia's Energy Targets: Confusing Headlines

The media often reports on targets for renewable energy, such as "31% by 2025 and 40% by 2035" without proper explanation. The distinction between installed capacity and actual energy generation is sometimes not made clear in news headlines, leading to confusion.

An example of this is a headline reading "40% of Malaysia's energy supply will be renewable by 2035"⁴⁷, which implies that the energy supply will be 40% renewable, when this number actually refers to the installed capacity target. However, this confusion is limited. Malaysiakini clearly explained the difference between installed capacity and energy mix in their coverage of the coal industry in Malaysia.

3.6 - Transitioning to Renewables

Malaysia's renewable energy capacity has steadily increased in the past few years. The 2020 annual Energy Commission report shows that renewable energy capacity growth increased to 6.6% from 4.3% in 2019, accounting for 15.2% of the total installed capacity in the Peninsula and Sabah. Amongst the renewable sources, solar power capacity saw the largest increase, growing from 3.7% in 2019 to 4.6% in 2020. NEP forecasted solar to have the largest percentage of growth in the projected energy mix from 2018 to 2040, at 4%, higher than hydroelectric (3%) and bioenergy (3%).

The policy also revised Malaysia's renewable energy capacity mix target, raising it from 20% to 31% by 2025. This 31% target is equivalent to approximately 8.5 GW, with an additional 1.2 GW required to reach this target by 2025. The majority of this increase is projected to come from 1.1 GW of solar (92%) and 80 MW of other renewable capacities.

3.6.1 - Solar to the Fore

In general, the business news section of the media outlet portrayed renewable energy positively, with solar as most frequently and positively featured (two-thirds are on solar). Solar was also regularly covered by the national news or business news in tandem with climate and energy transition. The news mainly focused on current developments in solar energy for the grid, industrial, and residential uses, such as large-scale solar projects, Net Energy Metering (NEM), feed-in tariff (FIT), and corporate, small-scale solar projects by leading providers of solar PV technologies.

Malaysia's geographical position near the equator shows a high potential for solar energy. Despite Malaysia's position as the leading manufacturer of solar photovoltaic cells, wafers and modules for the international market, solar as a viable energy for domestic use is limited due to costly investment. However, in the last decade, costs (per unit of energy) have been reduced by about 85%, and the urgency of the energy transition amid

the climate crisis has given solar a big boost. This is reflected in the updated national renewable energy goals and policies that support solar development at buy-in on a utility, mid-tier (construction and industrial or Commercial and Industrial (C&I) sectors), and residential scale.

In an undated Solar magazine profile on Malaysia, the then Minister of Energy and Climate Change Yeo Bee Yin highlighted that "Malaysia's electricity generation capacity would increase by 140%, a whopping 34.2 GW—if the rooftops of the 4.12 million buildings in Peninsular Malaysia with good solar energy potential were outfitted with solar PV systems"⁴⁸.

This rooftop segment is gaining traction as "more property, and solar developers are building solar-ready homes, which provide economies of scale and bring down the average cost". However, the adoption rate remains low, with 50% of the quota for homeowners and 72% for government bodies reportedly unmet⁴⁹. According to the Sustainable Energy Development Authority (SEDA), a study in 2018 showed that rooftop solar has the potential of 18GW. The main obstacle remains cost. Even though costs have decreased considerably, the minimum capital outlay is about RM20,000 for homeowners. Aside from costs, the awareness of existing government initiatives for residential adoption of solar is also reportedly low⁵⁰. SEDA stated that Malaysia intends to increase installed solar capacity from 1,500MW in 2020 to 4,706MW by 2025 and 7,280MW by 2035, mainly from residential and C&I rooftop solar. However, these figures are still far from the actual potential for rooftop solar⁵¹.

For now, large or utility-scale and mid-tier projects dominate solar news. Large Scale Solar (LSS) is a government program to drive down the Levelized Cost of Energy (LCOE) for developing large-scale solar photovoltaic plants through competitive bidding, with the Energy Commission as the lead implementing body. There have been four rounds of LSS bidding auctions, with the first (LSS1) in 2016 for 450MWac (megawatts of AC power) and LSS4 in 2020 for 1GW as the latest and largest capacity offered under the LSS scheme.

The Edge stays up to date on developments in solar energy, covering both LSS and small-scale solar. The solar sector appeared to look diverse, with various methods of incorporating solar into TNB's grid, such as Virtual Power Purchase Agreements (VPPA) and Green Electricity Tariffs (GET), and direct-to-consumer schemes cited as "a new breed of independent power producers (IPPs) that do not rely on LSS projects. Instead, they are developing small solar assets, each serving a single client in the C&I segment.". These pro-solar initiatives may accelerate growth in the industry and energy transition, but "details have yet to be ironed out", such as policies and "low take-up rates of rooftop solar quota among residential consumers and government agencies.". The writer

also notes with caution that there are lessons to be learnt from Vietnam, where "inadequate policy and poor planning resulted in excess RE energy flooding the grid to the point where supply had to be capped," harming the industry and consumers. For example, asset owners were prevented from monetising their generated power, and the closure of several solar service providers resulted in customers' inability to claim warranty for maintenance⁵².

However, the media also commonly criticised solar for its unsuitability to replace coal as baseload energy due to its intermittency. To a lesser extent, critics caution against the need for large land utilisation for LSS schemes. An analyst interviewed in The Edge mentioned that LSS schemes can raise deforestation concerns⁵³. Similar to natural gas and CCS, articles looking at these in-depth issues still need to be included.

Solar has the potential to transition from business news to other sections of news, appealing to a wider readership and raising its profile among the general news consumer. To illustrate this, a column in The Star's lifestyle section featured a story on the investment in residential rooftop solar by detailing costs, city council incentives, and expected returns on investment. The writer also talked about the motivations behind such investments, including personal responsibility for climate change and the fact that cities and urban areas are responsible for over two-thirds of a country's GHG emissions⁵⁴. These stories could be of interest to many homeowners who may be considering solar.

The NST also featured SEDA in national news pages focusing on SEDA's programmes and targets to advance renewable energies, including its solar initiatives to spur a "sustainable energy transition" for the country⁵⁵. With the significant potential for rooftop solar, there could be increased awareness of solar initiatives for homeowners.

3.6.2 - Going Mega on Hydropower

The Peninsular Malaysia Generation Development Plan 2020 (2021-2039) now considers large hydropower as renewable, "consistent with practices adopted by other countries internationally", a stance the previous Pakatan Harapan government (2018-2020) did not consider. Only run-of-river, small-scale hydropower plants with a capacity of up to 30 MW were previously considered renewable, as they do not require large storage dams and generate power from the natural flow of rivers, primarily serving local communities in rural areas. There were only a few **hard stories** about these projects in mainstream news outlets (3 to 5 per title over 18 months) within the business sections, focusing on projects, deals, and acquisitions. These articles typically did not feature major corporations.

The main focus of media coverage has been on large hydropower, notably the Nenggiri Dam in Kelantan, which has been portrayed positively in business and corporate news for its flood control, water supply, and green energy generation capabilities. The 300 MW project is expected to significantly increase the country's renewable energy capacity by 2040, as reported in the media and outlined in the NEP.

However, counterviews of the Nenggiri project have only been expressed in a few articles in the main news sections of a few media outlets, without any mention in the business pages. The Star⁵⁶, the Vibes⁵⁷, and Malaysiakini, between 2020 and 2021, highlighted the perspectives of the Temiar Orang Asli communities impacted by the project and their protests⁵⁸⁵⁹. The RM5 billion project, funded by the proceeds from the issuance of Sustainability Sukuk as reported by Bernama⁶⁰, will result in the flooding of over 5,384 hectares of forest, including Temiar Orang Asli customary lands that will affect more than 3,000 villagers, and displace over a thousand villagers from four settlements, inundate prehistoric cultural artefacts located in limestone caves as well as the graves of their ancestors. The group opposing the dam says it would erase their identities as Orang Asli and their ties to the land⁶¹.

While some media reported that affected Temiars had accepted compensation for relocation⁶², important questions have not been addressed, such as what constitutes fair compensation for such a loss and the consideration of alternative options. If a significant portion of the affected community still opposes the project, it raises questions about the negotiation process and adherence to the principle of free, prior, and informed consent.

The cost and benefits of large hydropower dams surrounding climate change, deforestation and wildlife, and the social-cultural impacts of displacement of Orang Asli communities from their native customary lands were not explored in depth, especially considering past experiences of other Orang Asli communities that have been relocated. But, the Orang Asli communities themselves, with support from Internews, have written about the problems of logging interests trying to take over their customary lands in Kelantan, and these writings were published in Malaysiakini⁶³.

This research uncovered articles expressing caution regarding developing large hydropower dams. One article, based on Bank Negara's Economic Outlook 2023, argues based on the climate projection on depleting river sources. The Edge also published a column examining Sarawak's hydrogen economy plans and the sustainability and carbon emission risks of large dams.

A recent article in the NST quoted a local road safety expert who claimed that there are more registered vehicles (33.3 million) than population (32.6 million) in the country⁶⁴. Although 11

3.7 - Decarbonising Transport and Cities

million registered vehicles are inactive, the increase in new vehicle registrations has been one million annually since 2019. Malaysia has a car-centric culture, and the government has implemented measures to support this, such as a services tax (SST) exemption for the automotive industry in June 2020. This exemption, which gave a 100% break for locally assembled passenger cars and a 50% break for imported cars, was part of a national stimulus package to help the automotive sector recover from post-pandemic shutdowns and has been extended until June 30, 2022. Malaysia heavily relies on private car ownership, which is encouraged by government policies subsidising petrol and supporting the country's two national car manufacturers.

The push for electric vehicles (EVs) is evident in policy documents and media coverage. However, the high cost of EVs is a barrier to wider adoption. The NEP aspires to have 38% of the EV market share by 2040 (compared to less than 1% in 2018). A spokesperson in the industry was quoted in The Star saying that EVs priced at RM200,000 or above will only capture 5% of the Malaysian market, and to appeal to a wider audience (50% of car buyers), prices would need to be below RM70,000⁶⁵. News outlets reported local car manufacturers Proton and Perodua's plan to introduce hybrid and full EVs, which will drive down prices.

However, many questions remain unanswered: is this likely to happen by 2040? What are the plans for internal combustion engine (ICE) vehicles, and how many more are expected to be on our roads by 2040, regardless of fuel type? Will there be a policy to reduce the number of cars, especially in city centres and urban areas? What are the overall impacts of the transition to EVs?

The National Energy Policy prioritises improving public transportation, with a goal of reaching a 50% modal share by 2040, up from 20% in 2018. However, this has received less media attention compared to advancements in the EV industry. As NST leaders regularly highlight, measures to promote public transportation in Malaysia must address the structural and systemic barriers to widespread adoption. Despite the call for improvement of Malaysia's public transportation system after the light rail transit (LRT) breakdowns in the Klang Valley, few are advocating for more investment in public transport compared to highway construction⁶⁶, as seen in a news report from NST. The construction of roads for increasing car ownership is a neglected issue, and the shift to EVs will not resolve it.

Much less has been written about the Low Carbon City Masterplan and the Low Carbon Mobility Development Plan 2021-2030 by KASA, which includes targets to reduce "165

million tonnes of carbon dioxide emissions, save RM150 billion fuel expenditure over a decade and promote the use of electric vehicles and other low carbon transportation". Only 2 out of 64 articles tagged as climate impact in the sample discussed urban issues (excluding flooding), and only 10 of 130 articles talked about climate solutions in urban areas. Although cities are responsible for more than 70% of global carbon emissions and consume two-thirds of the global energy⁶⁷, not much news is reported on these low-carbon plans. Our sample offers limited insight into these low-carbon plans, even if there is regional reporting on the plans for Shah Alam in Selangor and Iskandar Puteri in Johor. Most articles are based on politicians' statements during events and lack detail on implementation.

The public, NGOs and other interested parties are mostly uninformed about the climate plans of each town and council due to the lack of information about the climate actions taken and planned and the responsibilities and targets of each local council. The media could potentially involve a wider range of participants in reporting on local efforts to address climate change.

Box 4: Summary: Solar, Hydro, EV

The implementation of large-scale renewable energy projects lacks news reporting on the potential risks and consequences, particularly in cases where significant land-use changes are needed. This could lead to potential risks between large-scale solar and land availability or large hydropower impacts on forest areas and Indigenous Peoples.

With the certainty that renewables will play an essential role in our long-term energy future beyond 2040, information on how the authorities assess and plan to consider these wider impacts of large-scale projects is needed. What seems to be missing is publicly accessible information about the plans and policies for these renewables beyond the targets outlined in the NEP. For example, according to the column on green hydrogen in Sarawak, while "there is a Hydrogen Economy and Technology Road Map, produced by the Ministry of Environment and Water and the Ministry of Science, Technology and Innovation at the national level, the document itself is not publicly available for reference.". The journalists interviewed in this research agreed that accessing government data and reports is a common problem.

3.8 - Carbon Markets, Climate Finance and Governance

3.8.1 - Pricing Carbon Pollution

Carbon pricing is often seen as an effective means to accelerate the transition to green technologies. Carbon taxes increase the cost of using fossil fuels that emit GHGs, incentivising goods and services that are less carbon-intensive. The premise is simple: by pricing carbon, the cost of carbon pollution that causes climate breakdown is borne by those who buy and sell carbon-intensive products and services rather than society as a whole.

There are two main ways to price carbon. First is through a direct carbon tax levied on the carbon emissions from the production of goods and services, making high carbon-intensive goods more expensive. Twenty-four countries have implemented a carbon tax, across all sectors or specific sectors⁶⁸, with European countries being among the first to do so⁶⁹, as per World in Data.

The other method of pricing carbon is through the carbon market; mandatory (government regulated) and voluntary (run by various independent programmes that verify carbon emissions reduction with companies voluntarily buying carbon credits). The former is called the cap and trade system, also known as the carbon emissions trading scheme (ETS). A cap is imposed on a business's carbon emissions, dictating the amount of emissions they are allowed to produce. Entities are then able to buy and sell carbon credits. For example, businesses with low carbon emissions can sell their credits to entities that have exceeded their permitted carbon emission limits.

The European Union ETS, the world's largest and first carbon trading system, is crucial for GHG emissions reduction targets in Europe. The first trading period of the EU ETS started in 2005 and has since achieved a 42.8% decrease in GHG emissions in covered sectors⁷⁰. The European Green New Deal aims to reduce net GHG emissions by 55% by 2030 compared to 2009 through the ETS (Fitby55). However, the EU is concerned about "carbon leakage"⁷¹. In response to the EU's higher carbon prices and stringent environmental regulations, companies could move their high-carbon-intensity production to non-European regions with low or no carbon prices and lax regulations.

To counter this, the EU will implement the Carbon Border Adjustment Mechanism (CBAM) in 2023, affecting only selected sectors (electricity, iron and steel, cement, aluminium, and fertilisers), taking full effect from 2026⁷². This might put Malaysia's sizable trade with the EU at risk if Malaysia fails to address the carbon intensity of its exported goods⁷³. Despite the government claiming that CBAM has been a major

influence on Malaysia's carbon pricing development, the media has largely neglected to report on its overall impact.

Malaysia has yet to implement any environmental taxes, but the government has expressed its intention to introduce carbon pricing and has since tabled the intentions in the 12MP (in September 2021), Budget 2022 and the stalled Budget 2023. In the media, while there have been few reports on carbon pricing (most found in the English media, the search on Bahasa Malaysia media returned just two relevant results), there have been several commentaries on carbon pricing schemes in the context of Malaysia. The Star and The Edge have published commentaries that examine the advantages and challenges of implementing carbon pricing in Malaysia. There has yet to be an announcement on implementing a carbon tax or Domestic Emissions Trading Scheme. Sources quoted by the media view a potential carbon tax favourably as a way to reduce emissions and generate revenue for green development. The Budget 2023 also extended Green Investment Tax Allowance (GITA) and Green Income Tax Exemption (GITE) by two years until December 31, 2025, to incentivise businesses to accelerate the adoption of greener technology.

While the specifics of the carbon tax and Domestic Emissions Trading Scheme (DETS) are still being developed, Bursa Malaysia announced details about Malaysia's Voluntary Carbon Market (VCM) in August 2022. According to articles, the first batch of carbon credits will be auctioned on a VCM exchange at the end of 2022 and will be internationally sourced and certified by Verified Carbon Standard (Verra), an international standard-setter and certifier for carbon emissions reduction. The Star and The Edge have published in-depth articles detailing the VCM operation. The Edge interviewed the CEO of Bursa Malaysia, who said the VCM launch aims to "kick start the carbon market in Malaysia and demonstrate demand" for companies that have publicly declared their commitment to reaching net zero.

The Edge has been publishing comprehensive articles on carbon pricing and markets in their ESG pullout. Their cover feature, "Getting ready for carbon pricing," analysed the components of carbon taxes, emissions trading systems, and CBAM in the context of Malaysia and its impact on consumers⁷⁴. In "Getting Carbon Markets Right," they explored potential gaps that could be exploited, particularly with carbon credit projects that involve forests and indigenous communities, the identification of "good-quality" carbon credits, and the principle of "additionality."

Additionality, central to carbon markets, is a principle that the carbon credit project would add to the protection or quality of the forest. The revenue from the sale of carbon credits would be invested in restoring or rehabilitating degraded forests or protecting forests that would otherwise be vulnerable

to deforestation or land use change. Thus, a fully protected forest would not be eligible for a carbon credit project. A few weeks later, an op-ed in the same publication challenged the principle of additionality, arguing that it was unjust. The author claimed that countries that previously damaged their natural resources for development would still qualify for additionality while developing countries that have preserved their forests would not. This raised concerns about the equity of the system for developing countries that aim to benefit from protecting their forests⁷⁵.

Article 6 is the key operational part of the Paris Agreement. With its rules finally adopted in COP26 in Glasgow in 2021 and further advanced in COP27 in Sharm El Sheikh, Article 6 governs the rules for carbon trading and provides a source of climate financing for developing countries. Despite its complexity, Article 6 sets out the rules for voluntary cooperation between countries to trade emissions reductions and addresses key issues such as avoiding double counting emissions cuts, calculating additionality, and sharing proceeds⁷⁶. Essentially, "countries will be able to transfer carbon credits earned from the reduction of GHG emissions to help one or more countries meet climate targets."⁷⁷ Under Article 6.2, these traded credits, called Internationally Traded Mitigation Outcomes (ITMOs), can be traded between countries to count towards their nationally determined contributions (NDCs). Still, these are not expected to occur widely until the necessary national frameworks, and bilateral agreements are in place. Article 6.4 establishes a new international carbon market monitored by the UN Supervisory Body, where countries and companies can purchase carbon credits, but it won't be operational until at least 2024, as the necessary rules and regulations still need to be put in place. It is crucial for the media to carefully follow and understand the discussions and negotiations surrounding the development of Article 6, as it will influence Malaysian climate policies and carbon offset markets, particularly discussions on forests. For instance, using hectares of forests as a metric in ITMOs is complicated and could be susceptible to abuse. These and other issues at stake are worth exploring as highly controversial carbon market deals have emerged⁷⁸: for example, the contentious Nature Conservation Agreement (NCA) between the Sabah government and a Singaporean entity that was first exposed by the environmental news site Mongabay⁷⁹ ⁸⁰.

3.8.2 - Climate Governance

Climate governance is one of the fundamental drivers to reducing and adapting to climate change and its impacts, mainly through laws and policymaking at national and international levels. In Malaysia, the highest operational body on climate governance in Malaysia is the National Steering Committee on Climate Change (NSCCC) and Malaysian Climate Change

Action Council (MyCAC), with the Ministry of Natural Resources, Environment and Climate Change (previously KASA, now NRECC) being the leading institution responsible. NRECC is also Malaysia's focal point for the UNFCCC, overseeing all communications to the UNFCCC, such as the NDC, BUR (future BTR), and National Communication (NC).

Additionally, NRECC oversees various policymaking initiatives for climate governance, including reviewing the National Climate Change Policy, developing a Climate Change Act, establishing National Greenhouse Gases (GHG) Centre, and developing International Voluntary Carbon Markets Guidelines⁸¹ with other regulatory partners. While these still work in progress, two initiatives, the National Low Carbon Cities Masterplan and the Low Carbon Mobility Blueprint for the transport sector, are currently in place.

Climate governance initiatives in the corporate and energy sector are growing, with the RE100 framework bringing businesses together to operate on 100% renewable energy⁸². Malaysia is the first Asian country to set up a Malaysian Chapter of the Climate Governance Initiative (CGI) to collaborate, discuss, and develop risk-management strategies for climate change, legal and governance models, and capital planning with non-executive directors of listed companies.

The media doesn't widely cover these topics, with only a few articles discussing them, but the most commonly covered form of climate governance in the media is the Environment, Social and Governance (ESG) framework.

3.8.3 - ESG

ESG is a milestone in the evolution of corporate practices, influenced by pressures from labour movements, civil society, and environmental concerns to adopt better business practices. It took shape in a 2004 report produced by the UN Global Compact and 50 major financial institutions called "Who Cares Wins: Connecting Financial Markets to a Changing World." The report introduced guidelines for integrating environmental, social, and governance issues into business and corporate operations and stakeholders. ESG gained popularity in the late 2010s and has continued to dominate corporate headlines into the 2020s.

The PwC report Positioning Corporate Malaysia for a Sustainable Future found corporate Malaysia is positioned for a sustainable future and is second only to Singapore in ASEAN in terms of ESG journey. Although it is still a new concept for most Malaysian companies to grasp fully, the government views ESG as a "12MP key enabler" in reaching its net-zero target⁸³. News media reporting primarily focuses on the environmental component of ESG, with little coverage of "S" Social and "G" Governance aspects. Other environmental

protection components, such as biodiversity, water, and waste management, also receive limited attention in ESG reporting, but this does not suggest that corporations are not integrating these into their governance and structure.

The topic of ESG was widely covered in business news sections, coming in second after energy. Two companies, Petronas and TNB, were frequently mentioned for their ESG efforts as they worked towards their net-zero goals. Petronas is creating a new entity for its clean energy and low carbon business, while TNB is setting up a renewable energy investment and asset management company to own, operate, and manage these assets globally. In the first half of 2022, prominent news sources covered and promoted stories about these launches. Banks like RHB were reported to exit coal financing as part of their ESG commitments. Although the media mainly focused on corporate Malaysia, only a few articles recognised the importance of supporting Micro, Small, and Medium Enterprises (MSMEs) in their ESG journey gradually. MSMEs employed almost half of the workforce in 2021, representing more than two-thirds of Malaysia's GDP and are crucial in the supply chain for larger companies with ESG commitments.

But First, Good Governance

Although most ESG reporting on corporate and business pages is positive, columnists have provided more nuanced and critical viewpoints on the subject. For example, The Star's commentaries highlighting the importance of good governance at the domestic and international levels⁸⁴ recognised that Malaysia needs better governance. They argue that improving "legal accountability" and resolving "weaknesses and gaps in our system of governance" is imperative for effective climate and environmental action⁸⁵. In a similar vein, a Berita Harian columnist claimed that the current EIA framework has proven to be ineffective in preventing disasters such as the Baling floods of 2022 (11 flooding incidents as of the time of writing in July 2022), causing significant social and economic harm to local communities. The writer argues that adopting an ESG reporting framework across government agencies and businesses at the state and federal levels would strengthen local governance⁸⁶.

How Suitable is ESG, and How Well is it Understood?

A column in The Edge raised concerns⁸⁷ if the race towards adopting technologies and concepts established by developed countries is appropriate to the varying stages of economic and national development priorities of developing countries – points that are consistent with broader discussions of a just transition and the principle of common but differentiated responsibilities (CBDR).

Research⁸⁸ shows while Malaysian corporations displayed a degree of compliance to sustainability reporting requirements,

the quality of these reporting "fell short of linking ESG risks to the company's business operations, strategy, and risk management" and were thus "unlikely to meet the needs of investors who are increasingly concerned about ESG risks on value creation and preservation." In their assessment, corporations reported on corporate governance, regulations, and compliance (11%), climate change and environmental concerns (4%), and labour and human rights (9%).

In a similar vein, media commentaries observed that while more companies have begun setting net zero by 2050 commitments, there is an insufficient understanding of the risks and vulnerabilities posed by climate change, such as energy prices, infrastructure, and supply and logistics chains, which may impact specific areas of operations⁸⁹. Columnists in Mandarin media raised concerns about companies not having enough awareness about ESG, which could lead to legitimate concerns over greenwashing, referred to as a "bleaching tool" in Mandarin⁹⁰.

Only a few publications, such as The Star and The Edge, delved into the issue of greenwashing in greater detail. The Star ran multiple articles on their business pages discussing greenwashing concerns. Meanwhile, The Edge ran an ESG cover feature on greenwashing⁹¹ and ways to identify it, as well as a primer to the science-based target initiative (SBTI)⁹², which provides businesses guidance on strategic targets to reduce carbon emissions based on climate science that is validated, to counteract claims of greenwashing.

3.8.4 - Climate Finance

The UNFCCC defines climate finance as "local, national or transnational financing - drawn from public, private and alternative sources of financing - that seeks to support mitigation and adaptation actions that will address climate change". A Standing Committee on Finance (SCF) was established at COP 16 in 2010 to assist with climate financing under the UNFCCC and Paris Agreement. The major international funds under the UNFCCC include The Green Climate Fund (GCF) and The Global Environment Facility (GEF), which fund mitigation and adaptation programmes. The Adaptation Fund (AF), the Special Climate Change Fund (SCCF), and the Least Developed Countries Fund (LDCF) are special funds managed by GEF and GCF⁹³, which focus on adaptation funds for developing countries. Over two dozen other multilateral international funds for climate adaptation exist.

At COP15, developed countries pledged to commit US\$100 billion to climate finance annually to assist developing countries; this pledge could not be met in 2020 and has been delayed three years. According to research by Fulcrum, the COVID-19 pandemic has significantly reduced the flow of

climate finance from developed to developing countries⁹⁴. According to Dr Joy Jacqueline Pereira, the effects of COVID-19 on climate action in Malaysia have yet to be formally examined or acknowledged⁹⁵. However, negotiations regarding climate finance were already complicated and stagnant before the pandemic.

The research revealed that Malaysia has taken a backseat in seeking international climate financing compared to other developing countries. Between 2000 and 2019, Indonesia, the Philippines, and Vietnam received the most climate financing in ASEAN, while Lao PDR, Cambodia, and Vietnam had the highest climate financing per capita. Malaysia ranked the lowest among ASEAN countries in both the quantity of climate finance received and climate finance per capita from 2000 to 2019. Data from the OECD in 2019 revealed that Malaysia only received USD 141 million during this period.

Malaysia's first Nationally Determined Contribution (NDC) set a goal for an unconditional target to reduce the carbon intensity of GDP by 35% by 2030 relative to 2005 levels, with an additional 10% reduction conditional upon external support. In 2021, Malaysia revised its NDC, increasing the unconditional target to a 45% reduction and withdrawing the conditionality clause. The reasons behind the removal of the conditionality clause and Malaysia's refusal to seek international climate funding are unknown to the public. However, The Edge ESG column reported that Malaysia "has been receiving funding and capacity-building assistance from Germany, the UK, and the GEF." From 2000 to 2019, Southeast Asia received more funding for climate mitigation (USD28.37 billion) compared to climate adaptation (USD10.42 billion).

Following the disastrous floods of December 2021, Malaysia was reported to have requested US\$3 million from the GCF to develop the National Adaptation Plan (NAP), though more is required for implementation⁹⁶. The 2023 budget proposal allocated RM15 billion for flood mitigation and water infrastructure projects until 2030. By comparison, the Statistics Department (DOSM)⁹⁷ estimated the economic losses in Malaysia caused by the December 2021 floods to be around RM6.5 billion due to damages to various areas such as public assets, infrastructure, housing, agriculture, and manufacturing industries, among others. That represents 0.4% of Malaysia's GDP being wiped out in a single extreme weather event within a few days. The long-term non-economic losses of the December flood were not assessed.

In recent years, there has been a rise in media coverage of climate finance in Malaysia as more news outlets are picking up on local projects. There was a visible surge in climate finance news in the lead-up to COP27, but they were republished from international newswires and not included in this analysis. For example, there was an article citing researchers from the

Stockholm Environment Institute on the insufficient funding to assist developing nations, particularly in the recovery of loss and damages⁹⁸. The researchers suggested the creation of a compensation fund instead of loans to address the funding gaps for loss and damages. Another article revealed that South and Southeast Asian countries received approximately USD 113 billion in climate finance from international funds between 2013 and 2020, mostly in the form of loans that must be repaid⁹⁹. The absence of locally-led climate financing in the region leads to international funding that is not centred on the needs of local communities.

Some perceive climate financing as yet another avenue for the misappropriation of funds, stressing increased transparency⁸⁵. In the utilisation of funds and alignment with current adaptation measures. Macaranga published a story in December 2021 about growing landslides in Malaysia, which reported that the National Disaster Management Agency (NADMA) had spent almost RM29 million of the RM129 million allocated in the 11th Malaysia Plan's development budget (2016-2020)¹⁰⁰.

Although details on locally-led climate financing initiatives for climate adaptation were scarce, one piece of news stood out: the 'Nature-based Climate Adaptation Programme for the Urban Areas of Penang Island' by the City Council of Penang Island, Department of Irrigation and Drainage (DID), Think City, and UN-Habitat, received funding (US\$10 million) from the World Bank's Adaptation Fund in September 2020, securing Malaysia's first adaptation funding to address flood mitigation, extreme heat events, and increase urban resilience¹⁰¹.

Other climate finance headlines focused on national institutions or corporate initiatives. In May 2021, The Malaysian Reserve reported on Bank Negara Malaysia's Climate Change and Principles-based Taxonomy (CCPT), which serves as a roadmap for the financial services sector to shift toward climate-related financing and green investment¹⁰². An article published in The Star in October 2022 focuses on sustainability-linked financing¹⁰³, which has the potential to grow tremendously in Malaysia. According to The Edge, Malaysia is the largest Islamic finance market in Southeast Asia, representing 40% of domestic financing, and has the potential to pioneer climate finance¹⁰⁴. However, TNB's issuance of a US\$1.5 billion sustainability Sukuk to fund the controversial Nenggiri hydroelectric dam project, which has sparked protests from local Orang Asli communities, raises concerns about whether the project meets the criteria for responsible or sustainable financing¹⁰⁵.

Climate finance tailored to the needs of local communities for climate adaptation is uncommon in the news. Mitigation and carbon market mechanisms are more likely to be covered by the media since they fall under the purview of major national institutions such as Bank Negara Malaysia and Bursa Malaysia

and involve large corporations intending to meet their net-zero targets. Meenakshi Raman, President of Sahabat Alam Malaysia (SAM)⁹⁶, suggests that governments and local and international climate finance providers should pursue grant-based financing that prioritises local community needs, recovery from loss and damage, and adaptation. The nature-based initiative in Penang is a step in the right direction, and local councils from other jurisdictions are reportedly keen to learn from it.

As Malaysia looks into implementing a carbon tax, there may be tremendous room for growth in climate financing and investment decisions, but more information is required on how the funds will be used. Following the COP27 outcome, the country must also begin to engage with the loss and damage mechanism at the UNFCCC¹⁰⁶.





4. CLIMATE IMPACT AND THE NEWS



Climate change and its impacts have been making news headlines in Peninsular Malaysia. Overall, news coverage highlighted physical and social impacts, which include sea level rise, rising temperatures, heat waves, and heavier and more unpredictable rainfall patterns. They all lead to the collapse of public health and the ecosystems that sustain us, which were already compromised and made vulnerable by unsustainable human activities. These are published as hard news and features on general news pages and/or lifestyle sections and addressed in commentaries by columnists, including scientists and other subject experts. The coverage also emphasised the impact on mental health¹⁰⁷ and was given a "royal" spotlight¹⁰⁸.

The majority of climate news reports in Malaysia frequently focus on disasters. A column published in the *Vibes* noted that news coverage of climate disasters, such as the December 2021 floods, tends to quickly lose momentum without substantial solutions, follow-ups, or preventative measures in place¹⁰⁹. Several news editors we interviewed shared this view. They revealed that reporting on climate disasters and follow-ups, if any, tend to be "very brief and reactionary" and that this predicament is "an ever-present trend in climate coverage". This trend is observed in the coverage of recurring floods in Baling, Kedah, where the community's plight continues in the news cycle, although there has been little action or solution to their plight.

A commentary in *The Vibes* claimed that politicians and influential people do not consider climate issues or initiatives seriously as it is not lucrative and "will not gain them political mileage". In August 2022, *Malaysiakini* reported that the former Minister of Environment and Water in the Malaysian Parliament dismissed the calls¹¹⁰ by a coalition of Malaysian NGOs, the *Gabungan Darurat Iklim Malaysia* (GDIMY), to declare a climate emergency by responding that the government is "keeping a close eye on mitigation efforts to ensure there is no drastic increase in temperatures"¹¹¹. The article, however, is missing a critical context: Malaysia's relatively small contribution to global carbon emissions (0.37% up to 2020) and that local mitigation measures will have little effect on temperature increases in a climate-vulnerable region like Southeast Asia, which will require significantly more investments in climate adaptation. Although this is an extreme example, it illustrates how hard news tends to be written – directly reporting quotes and events without providing context or contrasting perspectives.

This is consistent with the findings of our interviews with journalists, who agree that coverage of climate issues is underreported or is even "severely underreported". They observed that climate reporting has emphasised events rather than examining underlying causes. At the height of the GE15 election campaign, which saw flooding in several regions of the

country, climate reporting was largely absent, and none of the media (as far as this research is aware of) reported any of the candidates using climate as a campaign platform although it was mentioned in party manifestos. This lack of attention could stem from candidates failing to address climate issues harming the country or reporters not bringing up climate questions. This questions whether news consumers are perceived as uninterested in climate change issues. This was acknowledged in our interviews with journalists, who described climate-related stories as less popular than ones involving crime, race, religion, accidents, or politics.

The subsequent sections examine various aspects of climate reporting portrayed in Malaysia's mainstream media on both local and global topics.

4.1 - UNFCCC COP26 & COP27

COP 26 was held in Glasgow in 2021 after it was postponed in 2020 due to the pandemic. Malaysia did not set up a pavilion in Glasgow, but the former Minister of Environment and Water attended the high-level segment of COP, where he tabled Malaysia's upgraded target to reduce the intensity of GHG emissions by 45% of GDP in 2030 (compared to 2005 levels) unconditionally by 10%. The country also reaffirmed its commitment to the Global Pledge on Methane and the Glasgow Leaders' Declaration on Forests and Land Use. Most Malaysian news outlets covered this news, but other COP updates were mostly republished from international newswires.

The Edge ran five in-depth features on COP 26. This extensive coverage was due to The Edge's participation in the 2021 Climate Change Media Partnership (CCMP), a journalism fellowship organised by Internews' Earth Journalism Network (EJN) and the Stanley Center for Peace and Security. Aside from focusing on the Malaysian delegation's plans and announcements at COP26, they also published an article, "The Voices of Orang Asli at COP26," which showcased the woven art pieces and documentary made by indigenous youth and women from the Orang Asli tribes in Peninsular Malaysia on their lives at the frontlines of climate change. For the first time, young Orang Asli women had a platform on the COP stage. Other COP 26 articles included interviews with the Secretary-General of KASA and stakeholders from NGOs and the private sector.

"After COP26: Malaysia's road forward" is one of the rare articles in the sample that looked more widely at climate risk. The article drew on perspectives from NGOs and the private sector, emphasising the need for clear data on the "physical and transition risks of climate change" to assist businesses and investors in making strategic decisions and for physical development planning approvals. The Secretary-General of KASA was quoted saying that Malaysians must play their

role by creating a "personal commitment to become more sustainable." However, a commitment to personal action, according to Nadiah Rosli, another CCMP fellow writing about her first COP experience in an op-ed, "also means that every citizen has a responsibility to follow the science of climate change and to monitor the commitments and progress made (and not made) by those in government"¹¹².

The Star published five pieces in various sections, including columns, features, news, and letters. Before COP26, they published a letter by Sahabat Alam Malaysia, endorsed by 18 other NGOs cautioning that "critical issues being advanced by developed countries that are bound to exacerbate further the inequities between developed and developing countries," and the need for alliances with other developing countries "to prevent the further shifting of obligations to the developing world"¹¹³. An economist wrote a commentary on COP26 for the business section, highlighting the impact of inadequate international climate financing⁹⁹. The lifestyle section also includes a summary¹¹⁴ featuring the perspectives of female delegates, including those from NGOs. The central themes of these articles focused on the division of responsibilities between developed and developing countries regarding climate change, referred to as shared common but differentiated responsibilities (CBDR). Other themes include the need for more attention on adaptation and loss and damage support, given the predominant focus on mitigation in the conference, and the inadequate climate financing pledged by developed countries.

Other media outlets' columns¹¹⁵ and editorials¹¹⁶ discussed the same key issues. Berita Harian raised doubts whether Malaysia's climate commitments are genuine, inquiring if they reflect the country's long-term national development goals or are based on the analysis and trends from developed Western countries¹¹⁷. NST also published a commentary from the British High Commission in Malaysia, which identified initiatives in Southeast Asia and Malaysia where the UK assists, such as low-carbon cities, forest protection, and green finance facilities¹¹⁸.

COP27 in November 2022 took place during Malaysia's 15th general election campaign. Without a functioning cabinet, the Malaysian delegation did not include a ministerial representative; however, Malaysia had a pavilion in Sharm El Sheikh, which generated Bernama coverage. Nevertheless, the bulk of COP coverage (in all languages) in local news media was republished from international news wires, with little original reporting by local media houses.

Bernama primarily covered the activities of Malaysian corporate and institutional delegates, such as news of Petronas becoming a signatory to the Oil and Gas Methane Partnership 2.0 (OGMP 2.0) and the International Renewable

Energy Agency's (IRENA) global Alliance for Industry Decarbonisation¹¹⁹. Bernama also reported on the launch of Bank Negara's Greening Value Chain (GVC) program, targeted towards SMEs to help them meet the standards for measuring and managing carbon emissions in preparation for the EU's upcoming Carbon Border Adjustment Mechanism¹²⁰. Additionally, Bernama featured the Capital Markets Malaysia (CCM) side event at COP27, showcasing Malaysia's experience with Islamic financing as a leading sustainability Sukuk issuance in ASEAN¹²¹. All these news were reported as hard news.

More critical voices were found in op-eds. The Edge published an article criticising rich elites at COP27 for drowning out diverse perspectives, particularly CSOs and climate justice advocates from poorer countries. The authors warned that the decline of multilateral platforms enables private financing to gain "considerable interest," adding that policy discussions are increasingly dominated by "inadequate ostensible private solutions"¹²².

A commentary titled "What's in it for Malaysia?" was published by Utusan¹²³, where the author argued that global elites dominate the COP platform and the concerns of developing countries like Malaysia are being ignored. The writer expresses concerns about the impact of potential fuel subsidy reductions on the Malaysian economy. Despite this, the author remains optimistic about carbon markets and believes Malaysia has an advantage due to the country's capacity to leverage nature-based solutions.

As a preamble to COP27, The Edge published an article that sought the opinions of key delegates from NGOs and the private sector on what Malaysia should prioritise at the conference. For Malaysia's lead delegate Zaini Ujang, secretary-general of the Ministry of Environment, "adaptation finance is crucial for developing countries. The allocation [of funding from developed countries] is skewed towards mitigation [where the technology is there already]. The question is about adaptation. We are still struggling to deal with flooding and other issues." Other delegates interviewed also emphasised the significance of adaptation, funding, and a just transition. Faroze Nadar, Executive Director of UN Global Compact Network Malaysia & Brunei, said, "we should decarbonise on our own terms as a developing nation." Another delegate, Lavanya Rama Iyer, Head of Policy and Climate Change at WWF Malaysia, responded that Malaysia's climate action should align with biodiversity efforts, as "nature-based solutions provide more than just carbon offset potential. It also assists businesses in addressing climate-related risks, particularly physical risks that we are already experiencing." However, there is a "disconnect" in adaptation across multiple ministries and industries on the local level, as highlighted in a

business roundtable at COP27. Faroze was quoted saying that clarity and transparency of adaptation data "are key so you can provide better decision-making avenues to all stakeholders."

As this news reporting suggests, the main points made by Malaysian delegates and stakeholders have been consistent throughout COP26 and COP27. They are calling for a shift in focus from mitigation to climate adaptation and funding, while op-eds scrutinised the dominance of powerful elites in shaping policy directions through the UNFCCC. Reporting was heavily oriented toward national, corporate, and economic interests, with sparse analysis of human interest stories. Malaysian youth, Orang Asli, and NGO delegates were present at COP27, though not as part of the official national delegation. Their perspectives and experiences have yet to be covered by mainstream media.

4.2 - IPCC and the Science of Climate Change

The IPCC reports lay forth the science of climate change and the future projections based on various scenarios. The UNFCCC heavily relies on these reports as the primary communication tool to inform policymakers and governments on the severity of climate crises and what mitigation and adaptation measures are required to prevent the worst-case scenario. However, the technical nature of the reports makes them challenging for the general public to comprehend. Hence, it is the responsibility of communication providers, such as the media, to simplify the information for non-experts. Only a few media outlets conducted this exercise, while most relied on newswires for their reporting.

Local media's reporting on the IPCC reports has been superficial and limited to citing statistics or findings, with little in-depth analysis. There were a few attempts to explain the IPCC report in the media; the most comprehensive was a lifestyle feature in *The Star*¹²⁴, which breaks down the highlights of the IPCC relevant to Malaysia with the help of two leading local experts from the scientific community, climate scientist Dr Azizan Abu Samah from Universiti Malaya's Institute of Ocean and Earth Sciences, and atmospheric scientist Dr Fredolin Tangang from Universiti Kebangsaan Malaysia. Similarly, another article in *The Vibes* summarised the climate impacts facing Malaysia.

The release of the IPCC reports was also covered in an editorial in *NST Leader*¹²⁵ and several columns. *NST*'s "No Vaccine For Climate Change" summarised the findings from the IPCC report in lay terms and featured comments from additional experts and scientists, including Dr Joy Pereira, who contributed to the report. Another column, "Now is the Best Time to Communicate the Climate Change Action Plan" by Dr Mohd Fadzil Akhir of Universiti Malaysia Terengganu (UMT), emphasises the key findings from the IPCC and the impact of climate disasters in Malaysia¹²⁶.

The remaining media in this analysis relied heavily on international newswires to cover the IPCC reports stories. As one editor described, "What's stopping media companies from doing it (explain the IPCC) is time to dissect the report, make it easier, and see if the findings are alarming enough to grab the public's attention. [Unless] you're lucky enough to have someone naturally interested in this, as a general news editor, you'd likely rely on Bernama or Reuters to help you on this."

4.3 - Parliament and Climate

"We have to draw the attention of Parliament and [the] public on the need to make climate change an important national agenda," stated Datuk Seri Anwar Ibrahim during the 2022 Climate Change Symposium¹²⁷.

The 2022 Climate Change Symposium, which took place on September 5th in Malaysia's Parliament, was a rare and timely event. It was organised by the office of the opposition leader, Datuk Seri Anwar Ibrahim, now prime minister, in partnership with the Dewan Rakyat Speaker's Office and Parliament. The event was addressed by Datuk Seri Anwar Ibrahim, the former Minister of Environment and Water, Tuan Ibrahim Tuan Man, and expert Dr Joy Jacqueline Pereira, who is the Vice-Chair of Working Group II of the IPCC Sixth Assessment Report (AR6). To promote knowledge sharing and raise awareness about climate change, a discussion panel convened by academics, NGOs, and MPs addressed questions from the audience.

It might have been a landmark event catalysing a conversation on climate change among policymakers and parliamentarians, but it was poorly covered by the media. It required targeted searching to find relevant articles.

According to *NST*, Datuk Seri Anwar Ibrahim highlighted, during the symposium, that NADMA is currently developing a Disaster Risk Management Act to enable an effective response to the climate crisis and provide immediate aid and mitigation. He further emphasised that "local councils, particularly in Selangor, Negeri Sembilan and Penang, must establish their respective disaster committees to ensure smooth coordination at the municipal level". Datuk Seri Anwar Ibrahim also proposed forming a parliamentary special select committee on climate change and sustainability.

In response, *Malaysiakini* published an op-ed in which the author argued that a parliamentary select committee "will enable Parliament to pay closer attention to this critical issue" and proposed that the Parliament invite rakyat (citizens) who have experienced climate impacts, local scientists, and climate change experts to share their perspectives, knowledge, and insight to drive better climate action¹²⁸. The then Kuantan MP, Fuziah Salleh, expressed her support for a parliamentary select committee on climate change and biodiversity during

the symposium¹²⁹, as reported in a Malaysiakini article in September 2022. Additionally, Tuan Ibrahim Tuan Man, the Environment Minister, announced at the 2022 Climate Change Symposium that a new climate change bill to "streamline the country's mitigation efforts"¹³⁰ is being finalised by 2022 and will be formally tabled in Parliament by the beginning of 2023.

In November 2022, Malaysiakini published an opinion piece from an Indonesian commentator who expressed doubt on the level of priority and urgency ASEAN leaders were giving to the climate crisis. Although it isn't a direct comment of the Parliamentary symposium, the writer references the pre-general election research by Greenpeace Malaysia on parliamentary mentions of climate change: "Of the 19,401 questions asked in Parliament since the last elections in 2018, only 8.4 per cent contained environment-related keywords. The term "climate change" or "perubahan iklim" was only discussed less than 0.3 per cent of the time. Of the 350 questions related to "flood" or "banjir", only 16 mentioned climate change"¹³¹. The writer pointed out that the absence of political and governmental discourse on climate change is widespread in Southeast Asia despite the region being considered one of the most vulnerable to the impacts of climate change. It remains unclear how the unity administration led by Anwar Ibrahim will handle the climate crisis.

4.4 - Climate Impacts: Reporting on Lives, Health and Ecosystems at Risk

Climate change impacts a country's environmental, economic, and societal well-being. Between 2030 to 2050, the World Health Organisation (WHO) estimates that climate change¹³² will lead to an additional 250,000 deaths per year globally "from malnutrition, malaria, diarrhoea and heat stress". In Malaysia, flooding, food security, ocean governance, and mental and physical health are all on the rise. These issues are often interconnected. This was explored in "When The Water Rises"¹³³, a special feature by Kini Newslab (a division of Malaysiakini specialising in data journalism and multimedia storytelling), on the multiple impacts of climate change already felt by Malaysians, particularly those from lower income brackets.

4.4.1 - Flooding - Our New Norm?

The flood in December 2021 was a devastating wake-up call for Malaysia. Since then, media in Peninsular Malaysia has given more attention to climate impacts, with flooding attracting the most diverse viewpoints (compared to other climate impacts), including columnists, experts, communities, and businesses. 36.3% of all climate articles reviewed were about flooding. Think City climate and environmental resilience director Sofia Castelo urged the government in a January 2022 article

published by The Vibes to recognise flooding as a result of climate change and take steps to prevent future occurrences¹³⁴. According to the article, the absolute volume of rainfall in Malaysia has increased by 15% in the last 40 years, and an 18% increase in rainfall is predicted in Shah Alam by 2050. This corresponds to the November 2022 Shah Alam floods caused by heavy rain¹³⁵.

Floods received increasing attention from the media. In April 2022, the then-Klang MP, Charles Santiago, claimed in The Vibes that the current drainage and irrigation systems are "obsolete" because they were designed more than 50 years ago¹³⁶. He proposed a development that connects the drainage and irrigation systems in "every township and area in Klang," to rivers for storage, such as off-river storage (ORS) or in-river storage systems and to redirect excess flood waters¹³⁷ through off-river storage or in-river storage systems, and diversion of excess flood waters. This would require the widening and deepening of rivers in Klang and other parts of Klang Valley. The widening and deepening of Sungai Klang began on October 31, 2022, and is set to be completed in the next five years for an estimated RM700 million, as reported by Bernama¹³⁸.

Climate science and weather systems have been examined in depth in media articles published in the aftermath of the deadly floods. Academia from local universities were frequently sought to provide their scientific insights. Dr Azizan Abu Samah, a climate expert from Universiti Malaya, and Dr Fredolin Tangang, a climatologist from UKM and former vice chair of the IPCC (WG1 2008-2015), are among those involved. These experts pointed out the following factors that contributed to the floods: the authorities' lack of readiness despite warnings from MetMalaysia, insufficient early warning systems, more frequent extreme weather due to global warming, unsustainable practices such as deforestation and ill-planned and uncontrolled development of urban areas built on floodplains, resulting in insufficient drainage and flood mitigation infrastructure, and poor waste management¹³⁹. The presence of a strong tropical depression in this complex scenario, as Mohd Sayuti Hassan, associate professor at the Centre for Global Sustainability Studies at Universiti Sains Malaysia (USM), succinctly noted, meant that "the flood was unavoidable."

The historic factors exacerbate the country's vulnerability to flooding in coastal urban areas. Urban expansion in Malaysia has taken place mainly on natural floodplains, which under a system of poor governance and oversight, have resulted in inadequate development patterns. Consequently, the risk of sea level rise and increased rainfall intensity have multiplied, an angle investigated by Berita Harian¹⁴⁰.

The deadly mudflows and floods in Bentong, Pahang, in December 2021 and the more recent water surge and multiple

flooding events in Baling, Kedah, in 2022, which claimed three lives and devastated the community in Kampung Iboi and other areas, have underlying causes such as logging and unsustainable upstream land use¹⁴¹.

What is the solution? Fredolin Tangang, quoted by the Malay Mail, stated, "we need to step up our adaptation measures to increase our climate resilience and minimise impacts. We should not increase our exposure to climate-related hazards such as floods by carrying out more unsustainable development, deforestation," while acknowledging that reducing carbon emissions demands global cooperation to ensure warming stays below 1.5°C. Further research is crucial to assess climate impacts in Malaysia and ensure that the findings are applied in developing policies to boost climate resilience, as flooding is projected to rise by 65% in the next 50 years¹⁴².

Flooding has been widely discussed as a growing concern in the media, and experts noted that Malaysia must plan 30 years in advance concerning water and food security. However, fewer media attention has been given to Malaysia's adaptation plans than its mitigation efforts. More coverage is needed on the long-term adaptation strategies to safeguard against future floods.

The Malaysian government recently announced plans to develop a National Adaptation Plan in June 2022, but it will take several years to complete. Therefore, there is currently little information about the official plan as the government has not made it a priority for public discussion. Yet there are still spaces for journalists to explore where adaptation measures are currently being implemented, researched, or discussed but underreported. Even without an official national plan, various stakeholders have taken the initiative to collaborate and address future risks, such as the partnerships formed to address food security.

The floods in 2021 resulted in unexpected legal actions, which were reported widely. Klang residents contemplated suing the Malaysian government for "negligence in flood management"¹³⁷, in what is described as the worst flood in 50 years^{143 144}. "It is a scene of devastation. The people of Klang are furious, and their anger is justified", the former Klang MP was quoted in a December 2021 NST story¹⁴⁴. He claimed that the lack of early warning systems to alert the public and officials of imminent flooding and "missing" government officials in the first few days of the tragedy led the residents to organise relief efforts themselves¹³⁷.

The court case was a long time coming, as Santiago's RM6 million request in funds to mitigate future flooding events by clearing clogged drains in Klang¹³⁶ was repeatedly rejected by the federal government. Santiago did not stop there; he filed for an injunction to prevent the latest GE15 from taking

place during the monsoon season¹⁴⁵. However, the High Court dismissed the case¹⁴⁶, and the GE15 went ahead despite flooding in Klang, Shah Alam¹⁴⁷, Sepang¹⁴⁸, and other sections of the Klang Valley during the campaigning period, as well as a Sarawak constituency on polling day¹⁴⁹.

In April 2022, a class-action lawsuit was filed by 50 residents of Taman Sri Muda, Shah Alam, against the federal and state governments for their "negligence and breach of statutory duties"¹⁵⁰ during the December 2021 floods¹⁵¹. More recently, in late September 2022, a lawsuit against the Kuala Lumpur City Hall (DBKL) was put into action by a group of residents of Kuala Lumpur to demand further resources on flood mitigation from DBKL and the Federal Territories Ministry¹⁵², claiming that the DBKL's Flash Flood Action Plan 2022 was "outdated," "inadequate," and unprepared to deal with the impending floods¹⁵³. The residents agreed to attend a town hall to be informed about the situation, thus, they have yet to decide on pursuing the lawsuit¹⁵⁴.

The Malaysian government, on the other hand, is familiar with lawsuits. In June 2022, the Pahang state government sued the president of Pertubuhan Pelindung Khazanah Alam Malaysia (PEKA), Puan Sri Shariffa Sabrina Syed Akil, for defamation over her Facebook posts alleging that logging activities in Pahang lacked transparency and exacerbated the December 2021 floods that claimed ten lives^{155 156}. Shariffa rebutted in her defence statement that "a state government cannot be defamed, and its actions should be open to criticism from the people"¹⁵⁷.

One catastrophic flood disaster has ignited the nation. Yet, less than a year later, the much-maligned "flood polls" of GE15 were underwhelming, with climate and floods mostly absent from media coverage of political campaigns. Macaranga attempted to publicise NGOs' and CSOs' environmental and climate concerns¹⁵⁸, and their readers were encouraged to lobby election candidates on climate matters. However, there was minimal indication in the mainstream media that climate was a concern for politicians and the general public.

4.4.2 - Securing Food for an Uncertain Future

Food security is a growing concern in Peninsular Malaysia due to frequent weather instability. In August 2022, The Edge reported on the correlation between rising temperatures and their negative impact on food security in Malaysia; as soil fertility and crop yield depend on the physiology of plant and animal health, disease and pest infestation¹⁵⁹. According to the 2021 ASEAN State of Climate Change Report¹⁶⁰, a 2°C rise in temperature is projected to lead to a decline in rice yield by one tonne per hectare, as noted in an article by The Star. In a feature published by The Star looking at how climate impacts will affect Malaysia, Dr Azizan Abu Samah indicated that

variations in Malaysia's monsoons are harming our nation's food security and marine ecosystems¹²⁴. Floods, heavy rainfall, and wind also affect rice production.

Saltwater intrusion from sea level rise along coastal paddy granary areas is a pressing concern. According to researchers, more than 30 hectares of rice fields have been affected by saltwater intrusion in Kuala Kedah, and farmers have had to bear more than 75 per cent losses since the problem began in 2016¹⁶¹. Malaysiakini's special feature on sea level rise spoke to affected farmers, but apart from this, the issue has yet to receive coverage in other media.

Media coverage of local adaptation measures in the food sector has been scarce but was brought to light in Macaranga's Tanah Air ("Land and Water") special series. The story shed light on the struggles of local paddy farmers and showcased the collaboration between the Muda Agricultural Development Authority (MADA), the Malaysian Meteorological Department (MetMalaysia), and the National Research Institute of Water Malaysia (NAHRIM) on improved weather forecasting and the utilisation of coastal reservoirs¹⁶². Securing national food security requires protecting upstream watersheds and enhancing farmers' resilience as food producers. Given the susceptibility of rice farming to droughts, adverse weather, and sea level rise, it is crucial to prioritise research and forward planning to support farmers' livelihoods.

Even small-scale crops, such as strawberries in Cameron Highlands, are affected and can negatively impact local livelihoods from both tourism and agriculture. The New Straits Times reported that rising temperatures and deforestation had altered the region's microclimate, leading to lower strawberry yields and decreased quality¹⁶³.

Besides rice, other staples are also vulnerable to climate change. Fish, especially the Indian mackerel (ikan kembung), is an important protein source for Malaysians. However, the media reported a decrease in its productivity in mid-2022. Climate change is linked to ocean acidification, rising ocean surface temperatures, and irregular wind and rainfall patterns, all of which influence the distribution of marine life and exacerbate the already vulnerable state of wild fish stocks due to irresponsible, unsustainable fishing practices. This issue was addressed by various media outlets, such as the New Straits Times Leader's article "Finding Mackerel".

The distribution pattern of the Indian mackerel has changed¹⁶⁴, moving outside Malaysia's exclusive economic zone (EEZ) as a result of warmer waters and unstable weather conditions, according to a study by marine biologist Dr Yeny Nadira Kamaruzzaman, reported by the Malay Mail. Heavy rainfall, rough currents, and monsoon are also expected to affect catches, doubling the price of fish¹⁶⁵.

Fisheries management, in contrast, is concerned with stock assessment and regulating catch quotas, gear, and fishing vessels. However, according to a Global Fishing Index by the Minderoo Foundation, practically all catches in Malaysia "come from unaccessed stocks with unknown sustainability status"¹⁶⁶. Greater media focus is needed on Malaysia's fishing industry and policies. Safeguarding ocean and wild fish stocks as global commons will require international cooperation to lobby developed countries to drastically reduce their carbon emissions to stabilise the global climate.

Rice and mackerel are just two of several challenges facing significant uncertainties in the food and agricultural sectors due to the Peninsula's changing weather patterns. Apart from the Macaranga special feature on Malaysian rice granaries, these topics have yet to be thoroughly investigated:

What are the primary adaptation concerns in the other food sectors? Even agricultural commodity sectors such as oil palm would be affected – how will a 2-4°C temperature rise, longer droughts, heavier rainfalls, and seawater intrusion affect the productivity of Malaysia's essential economic commodity? What are the strategies and policies to manage these?

4.4.3 - Ocean Governance and Coastal Resources

Climate change is threatening marine ecology, but local journalists have published very few pieces on the effects of climate change on marine ecosystems. It has been covered in an NST Leader section and on Macaranga, the specialty media focusing on environmental issues.

Marine ecology is at risk from climate change, however, local media has yet to report on its impact on marine ecosystems widely. Only limited coverage has appeared in an NST Leader¹⁶⁷ section and Macaranga, a media outlet specialising in environmental topics. Malaysia needs to have efficient ocean governance. "Though Malaysia has a considerable stake in the ocean, the existing policies and the institutional and legal framework for developing comprehensive ocean governance have not received the attention they deserve", mentioned Dr Illisriyani Ismail, senior research officer at Universiti Putra Malaysia (UPM)¹⁶⁸. Reef Check Malaysia, a marine conservation NGO, reported an estimated 32 legislations in Peninsular Malaysia focusing on biodiversity conservation are enforced by various federal and state agencies, resulting in jurisdictional overlap, poor coordination, and an overall unsustainable management¹⁶⁹. The state of Malaysia's oceans is deteriorating rapidly due to ineffective governance, as an increase of developments along coastal areas results in "reclamation of wetland and estuaries, decline of water quality and loss of nearshore fishery stocks"¹⁶⁸.

Malaysia drafted a national ocean policy (NOP) in 2011 "as a foundation for future strategies and action plans for ocean and coastal resource management"¹⁶⁹. In light of the United Nations Decade of Ocean Science for Sustainable Development, an article in NST suggested revisiting the policy for the "basis of comprehensive ocean governance" between 2021 and 2030¹⁷⁰. However, despite the magnitude of the potential risks to the ocean and coastal areas, little else was reported on Malaysia's strategies for ocean governance. There was slightly better coverage of the effects of climate change on coastal habitats, where social implications from coastal erosion and sea level rise are already being felt.

4.4.3.1 - Coral Reefs and Mangroves

Coral reefs occupy a small portion (less than 1%) of the ocean, yet they are home to an estimated 25% of all marine life. Known as the "rainforests of the sea" due to their resilience and diversity, coral reefs face the threat of bleaching, where they lose their colour by expelling the algae (zooxanthellae) that give them colours surrounding temperatures increases. Since 1970, 93% of emissions from GHGs have been absorbed by the ocean in the form of excess heat¹⁷¹, leading to six mass coral bleaching events at Australia's Great Barrier Reef from 1998 to 2022¹⁷².

According to coral researcher Terry Hughes, published by *The Vibes* in May 2021¹⁷³, more than half of the coral population has already been lost. The collapse of coral reefs will result in the loss of marine biodiversity and a decline in coastal protection, both of which will lead to secondary consequences for coastal communities, including fishing and tourism, agriculture, food security, sea level rise, and flooding. According to the IPCC's Special Report on Global Warming, a 1.5°C rise in temperature could result in the loss of 70-90% of the world's coral reefs, while a 2°C increase could result in more than 99% loss¹⁷⁴. The IPCC emphasised the next 8-10 years are crucial to restoring our coral reefs and marine ecosystems before permanent harm is done, as Macaranga reported in May 2022¹⁷⁵. Malaysia's coral reefs are still in the safe zone. However, changing weather patterns may give rise to tropical cyclones, which can cause coral reef damage¹⁷³.

The primary coverage on coral reefs came from *The Vibes* and Macaranga, which examined the issues at play and the responses by scientists working to conserve the habitat. There is limited discussion elsewhere about the significance of these natural systems and the consequences of their destruction. Local news media rarely report on the impacts of tropical cyclones on coral reefs, which would be valuable to bring to attention and could lead to further discoveries in coral reef rehabilitation, recovery, and protection.

Specific to mangroves, the media attention is centred around carbon sinks. A recent study found that mangroves can absorb and sequester an immense amount of carbon, about five times more carbon than tropical forests, due to their unique soil composition, says mangrove ecologist Dr A. Aldrie Amir in an article by Macaranga¹⁷⁶. Malaysia has vast mangrove areas which offer potential climate mitigation, but they are facing threats from coastal land reclamation, rising sea levels, excessive logging, and conversion for aquaculture, according to an NST article¹⁷⁷. The decline in mangrove ecosystems significantly impacts coastal communities, exposing them to extreme weather conditions and harming their food security. The research offers a "more coordinated and comprehensive" approach to rehabilitating and salvaging mangrove ecosystems.

The business pages of news media mention mangroves, forests, and peatlands in the context of generating carbon credits for Malaysia due to their carbon sequestration and coastal protection capacity. For example, modelling suggests that restoring mangroves, peatland, and degraded forests may generate up to 40 tonnes of carbon dioxide equivalent (40 MtCO₂e) of carbon credits annually¹⁷⁸. In their commentaries, scientists saw the urgency to invest in and preserve mangroves in response to the December 2021 floods. Despite recognising their significance, there was limited media coverage of Malaysia's plans to implement, finance, and conserve these crucial ecosystems.

4.4.3.2 - Coastal Reclamation: Friend or Foe?

The Penang South Reclamation (PSR) project, renamed the Penang South Islands (PSI) project – the rebranding was seen to make the project less harsh¹⁷⁹, is a hot topic among the Chinese media. *Oriental Daily* reported that the project would result in 3.2 million tons of carbon dioxide emission annually¹⁸⁰. Despite this, the Penang state government claims that the reclamation is a step towards climate action. According to the *Oriental Daily* article, the sedimentation from reclamation activities will "pollute seawater, destroy tidal beaches (already happening in Batu Ferringhi) and coastal mangroves", and the sand for reclamation is to be obtained from other areas, such as Perak, which impacts coastal communities and marine ecosystem in those areas. Despite this, the Penang state government claims that the reclamation is a step towards climate action¹⁸¹.

Justified and done right, reclamation has been accepted as a form of climate adaptation. According to a Penang Institute analysis¹⁸², the IPCC's fifth assessment report recognises reclamation as a measure to "mitigate sea level rise in consideration of 'land scarcity, population pressure, and extreme events' and can be an opportunity to support and fund adaptation."

Penang residents have been vocal in their opposition to the reclamation, and their concerns have been well-publicised, particularly over the effects on fishing communities. It will come at a cost for the fishermen, whose livelihoods and local knowledge will perish because of the reclamation. PSR's social impact assessment (SIA) study was approved in 2019, even though most of the fishermen in the area claimed they were never briefed or consulted on the report¹⁸³.

The Penang Fishermen's Association has consistently expressed their disapproval of the PSR project since its inception in 2015, even staging a protest at sea in 2017¹⁸³. Their efforts paid off in August 2022 when the Penang High Court ruled to reject the reinstatement of the PSR project¹⁸⁴. The Vibes reported that the environmental impact assessment (EIA) was rejected twice before, first in 2018 and then again in 2022, for lacking sufficient information¹⁸⁵ and was only temporarily approved in 2019.

Malaysia Tolak Tambak (Malaysian Movement to Reject Reclamation), a coalition of 32 environmental NGOs, has opposed 20 or more large-scale reclamation projects and artificial islands, urging them to be cancelled¹⁸⁶. During the coalition's October 2022 conference, their spokesperson, Khoo Salma Nasution, stated that "almost all artificial island projects can be said to be less-than-transparent in terms of cost and public benefits, due to the nature of mega projects that aim to privatise fishing areas to real estate developers and speculators for personal interests"¹⁸⁷.

4.4.3.3 - Coastal Erosion and Sea Level Rise

The National Coastal Vulnerability Index (NCVI) shows that 425km of Malaysia's coastline is affected by coastal erosion¹⁸⁸, according to Datuk Seri Reezal Merican Naina Merican in a June 2022 article by The Star.

In July 2022, multiple local news media reported coastal erosion at Penang's Batu Ferringhi beach¹⁸⁹, and mitigation actions were said to be carried out. However, in December 2022, it was reported that the coastal erosion in Batu Ferringhi had significantly worsened, and the mitigation efforts had run into complications when large waves washed away sandbags that were "put in place as a buffer to prevent worsening erosion"¹⁹⁰.

The severe coastal erosion in Batu Ferringhi made the beach unsafe for tourists and resulted in a decline in ecotourism. "The state should conduct a comprehensive study to determine if reclamation in other coastal areas has impacted the beaches in Batu Ferringhi," said Khoo Salma Nasution in an article by The Vibes¹⁸⁵. In a letter published by NST, Khoo also reported coastal erosion at Malacca's Pantai Puteri¹⁷⁹, which may have been caused by private reclamations. Marine expert Zulfigar

Yasin from USM recommended the best way to mitigate the coastal erosion in Batu Ferringhi would be to plant marine plants like seagrass and mangroves to stabilise the sand and prevent further erosion¹⁹¹. Despite the proposed solutions, no progress was reportedly made.

Studies have demonstrated the effects of sea level rise on coastal communities. In 2015, the National Hydraulic Research Institute (NAHRIM) warned that over eight million Malaysians could be affected by the end of the century due to rising sea levels¹⁹². Coastal cities like Klang are vulnerable to flash floods, frequent heavy downpours, and "drowning" if their drainage systems are not improved¹⁹³. In November 2019, the Centre for Governance and Political Studies cited scientific research that some Malaysian cities, including significant parts of Klang, could be submerged by 2050¹⁹⁴.

Reezal Merican estimates that over 20,000 hectares of coastal areas will be impacted by sea level rise by 2030¹⁸⁸. Malaysiakini published a special multimedia feature¹³³ on the effects of sea level rise and flooding, showcasing the experiences of Klang residents during the December 2021 floods and examining the impacts of rising sea levels on Klang's port and industry. It also looked at saltwater intrusion in Kuala Kedah in 2016, which left paddy farmers bereft of harvests for the following years.

The impacts on coastal areas are immense, and the media has generally covered these events well as they unfold, particularly high-profile stories like the PSR, which saw the active engagement participation of CSOs and MPs. However, reporting on solutions requires more effort. The solutions mentioned in media reports, such as using sandbags to stop erosion and constructing bunds to control rising sea levels, seem inadequate compared to the severity of the crisis. The projections of sea level rise may have been reported in our local news media, but the solutions and mitigation elements are severely lacking in contrast.

4.4.4 - Climate Health Equals Public Health

Climate change also poses many new known and yet unknown threats to human health. This aspect of the climate crisis was moderately well covered by our media sampling, where about 12% of climate news stories mentioned health or are regarding health. There is increasing concern about what climate change will bring: water, food and vector-borne diseases. For example, an article by Malaysiakini quotes a study by Lancet Planetary Health that mentioned an increase of 4.7 billion people at risk of both dengue and malaria by 2070, especially those that live in lowlands and urban areas¹⁹⁵.

In the Lifestyle section of The Star, several columnists focus on various elements of health implications. Changing weather patterns can also lead to increased asthma attacks and other

respiratory and cardiovascular complications. In another article, he addressed the issue of climate anxiety that many Malaysians confront, particularly those who have felt the impact of climate change on their livelihoods¹⁹⁶.

The pandemic also demonstrated that health crises are also economic, social, and political challenges, writes Dr Jemilah Mahmood, Executive Director of the Sunway Centre for Planetary Health, in the October 2021 issue of *The Star*, where she also maintains a column. In calling for a National Planetary Health Strategy, which she defines as "a new way of looking at the centrality of our relationship with nature and living within the limits of what the planet can sustainably provide," she is advocating for a framework that addresses both public health and environmental protection.

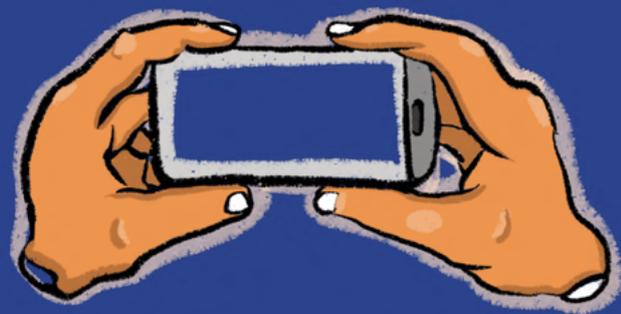
National plans, such as the 12MP, should, in her opinion, "take the health of the planet as a starting point rather than an add-on" as the first step¹⁹⁷ in steering the economy toward better outcomes for both people and the planet. In April 2022, *Utusan* reported that then-Prime Minister Ismail Sabri had announced that a National Planetary Health Strategy would be set up, to be led by the Ministry of Science, Technology and Innovation with the Academy of Sciences Malaysia (ASM)¹⁹⁸, although no other news on the strategy has been reported since.

An article published in November 2021 by *The Malaysian Reserve* detailing a study conducted by Unicef Malaysia, Universiti Kebangsaan Malaysia (UKM), and University Malaysia Sabah (UMS) discovered that extreme and unstable climate conditions affect children's education negatively¹⁹⁹. Professor Datuk Dr Norazah Mohd Nordin, deputy vice-chancellor for Industry, Alumni, and Community Partnerships at UKM, recommended climate mitigation and adaptation measures to adopt a "child-sensitive" approach.

There is a sense that much is still uncertain about the health impacts of climate change. *Malaysiakini* reported on the Association of Academies and Societies of Sciences in Asia (AASA) launch of their report "The Imperative of Climate Action to Promote and Protect Health in Asia" during COP26, citing that "there is a lack of comprehensive understanding of direct and indirect health impacts because of their complex causal pathways". The report urged policymakers to "focus their attention on protecting human health against the high-level impacts of climate change." It isn't clear if this is on the agenda of the Ministry of Health.



5. NEWSROOM INSIGHTS AND RECOMMENDATIONS



5.1 - Climate: "It's criminally underreported"

There remains a perception that the public is uninterested in climate-related stories. There is also a consensus amongst the journalists interviewed that climate stories are not as popular with readers as "crime, accidents, and high profile court cases," unless it is "sensational" or if it includes "names of politicians or anyone important" but, "irregardless of popularity or hits, we still have to write it," says Nuradzimmah, an experienced journalist on a general news desk of a leading daily media.

A journalist mentioned that their editors had not been interested in pursuing climate stories until recently (the editors declined to be interviewed for this research), yet, at the same time, all the journalists and editors we spoke with agreed that more needs to be done to increase climate reporting in their respective media and Malaysia in general.

They did note, however, that journalism, in general, is increasingly taking a climate angle, notably in disaster reporting, but also in the broader landscape: "it could be due to KASA talking about it more." Another journalist observed that "the last five years have seen an increase in more in-depth coverage, because climate impacts, especially floods, are news that cannot be avoided," but adding, "more science and data needs to be included." The following is a sample of responses from journalists who were asked their opinions on the state of reporting on climate issues in Malaysia:

"It's criminally under-reported. It says a lot when you have floods, and environmental disasters and the news picks up for a while, and then nothing happens."

"Lacks nuance and depth, largely event-based, single-sourced, or based on media releases, largely quoting politicians/government, with minority voices sidelined particularly marginalised communities and women."

5.2 - Lack of specialisation and resources

In general, news media in Peninsular Malaysia do not have climate or environment desks. Most of the journalists we spoke to are on general beats, although some have chosen to cover climate and energy transition-related stories out of their own interest by pitching the stories to their editors. Even if a publication has a special projects desk (where longer form climate or energy stories are produced), the writers may not solely focus on these projects, i.e. they also write for the main news desk. Macaranga is the only media organisation specialising in long-form and investigative reporting on environmental and sustainability issues. Their current model is based on a small editorial team relying on freelance writers and mostly on media grant funding.

None of the newsrooms that were part of this research has an official environmental or climate reporting policy. They may practise an unofficial stance to prioritise these stories, but in reality, "it always depends on resources," and other subject matters usually take precedence, such as politics and "the bread and butter issues", according to one editor. However, a few media organisations have put resources into pullouts for ESG, as The Edge and The Star have done. For business-focused media such as TMR, reporting on climate and energy transition "is a strong side piece because it can be linked with ESG initiatives."

What can News Media do? Climate desks

A climate desk that focuses on covering climate and/or energy transition issues will allow journalists to specialise and focus on building their experience, expertise, and networks in climate reporting. To complement this, media organisations may consider introducing guidelines, house styles, or policies to guide environmental or climate reporting. For example, looking at issues (mainly bread and butter) through climate and intersectional lenses, examining root causes, and following up on longer-term responses and solutions to environmental disasters or other challenges – thereby holding various stakeholders, including duty bearers, accountable.

5.3 - Big Picture, Follow-ups, and Intersectionality in Climate Reporting

In general, there was agreement amongst the journalists that Malaysian "news or news coverage is very event-based, very reactionary. We just cover events and what's going on." An editor suggests that instead of reporting on the event itself (for example, coastal erosion or sea level rise), the media should be looking at the bigger picture – the overall state of things – "how bad things are [and] what Malaysia is trying to do beyond the state level". In addition, cross-sectoral themes are rarely presented. To counteract predominantly event-based climate reporting, media organisations such as Internews and Earth Journalism Network (EJN) train journalists to consider how climate and environment stories intersect with politics, economy, and science, as well as stories about women, vulnerable communities, culture in various interactive format such as data stories²⁰⁰.

The intersectionality angle in reporting was seen during the December 2021 and Baling floods – where although more extreme weather systems could be attributed to climate change, other human factors compounded to create a humanitarian disaster, and prime amongst this is poor governance in land use planning and regulations.

Linking wider issues, such as food security, transmissible diseases, and even migration to climate change (where clear links can be established) is "critical", says Wong Siew Lyn, co-founder and editor of Macaranga. To that end, she conducts media training, "targeting largely non-environmental/climate journalists, on looking at the intersections of climate and other (purportedly) non-environmental topics like business and human rights. I emphasise the use of climate/environment as a lens to look at these other topics or conversely invite journalists to look at the business of climate change or how human rights exacerbate climate issues."

But, as Najmuddin, an editor at NST, shared, "those kinds of reporting require skill, but the media houses are always a revolving door. There's a high turnover, so it's hard to get people that know about the topic and have the skills for it."

When asked what the media could do better, there was a sense that the link between industries and environmental degradation needed to be given greater attention. "There is a lack of focus on industry and how it affects the ecosystem. For example, Sungai Kim Kim in Johor. The follow-up [by media] was so brief, it barely lasted three weeks," Najmuddin says, "and that is an ever-present trend on climate coverage." Because very few emphasise following up on major environmental disasters, the public is kept in the dark about the effectiveness of the solutions to prevent further disasters. The onus is on the media to self-correct: "I think policies should be done by the media houses themselves to take a stand."

Siew Lyn of Macaranga suggested there needed to be "more critical coverage of the slow pace of energy transition" as well as the impacts of transition, such as the impacts of "hydro-electric power stations vs forests, disposal of solar panels, [and the] cost of mining the rare earth to power this transition."

However, the restriction of access to data held by the government, which was ubiquitously brought up by all the journalists we interviewed, hampers the ability of journalists to investigate and do their job well. They opined that "government data is difficult to source, incomplete, or contradictory".

5.4 - Lack of funding and resources

Funding, or the lack thereof, is one of the two main factors often mentioned hindering better climate coverage and in-depth analysis, the other being staffing shortage. Journalists interested in pursuing climate stories were unable to due to the lack of funding. The lack of human resources faced by media organisations means a tighter time constraint, preventing journalists from exploring climate stories in depth, which is crucial for deepening their understanding of the broad and complex terrain of the climate crisis.

The pressure to meet deadlines means that most stories end up being told from a single angle, with a single source, without additional context or comments from other sources, excluding a diversity of other relevant voices and opinions - as shown in Figure 4, nearly half of the articles analysed quoted only one source. Politicians and government made up the majority of sources quoted.

Although journalists can seek media grant funds to pursue climate stories, newsroom pressures may limit their capacity to commit to grant projects fully. Even if they are grant recipients, several journalists from general newsrooms remarked they

What can News Media do? *Beyond events-based reporting*

- Exploring root causes of the increasing frequency of disasters, such as floods in rural and urban areas, deforestation of important forest areas and environmentally sensitive areas, and following up on the responses and solutions to the issues. Revisit key topics or unresolved disasters, "repeating it until they get it," as one editor put it, alluding to maintaining pressure on authorities to act on crises. This will enable better follow-up on essential stories. As suggested by one of the journalists, there needs to be greater emphasis on "solutions journalism", which incorporates a more rigorous and comprehensive coverage of a particular issue or topic.
- Finding a wider human angle to the energy transition story. A journalist added, "Otherwise, it's just money and investment and how much does it cost to move [away from carbon], who's going to be funding, which bank is giving the money... It's not something that the general public cares about."

still have their newsroom responsibilities to meet. Journalists working on grant-funded projects must have full autonomy over their time for these projects.

The gap for broader and deeper insights into climate transition topics by local journalists is filled by opinion writers, subject matter analysts, and experts contributing in commentary sections. However, in the business sections, senior business journalists also take on this role (however, this research could not interview any). Following the December 2021 floods, scientists like UKM's climatologist Dr Fredolin Tangang, among others, have been quoted widely as expert sources across different news media and penning explainers themselves²⁰¹.

With tight resources, editors rely on Bernama, the national news agency, for local climate and energy news stories. Many of these were sampled in the general news and business pages, where straightforward reporting of events, conferences, launches, and official announcements, especially by government and large corporations concerned. It is also noted that the Bernama features and data journalism desks have been pursuing multimedia storytelling platforms to present stories rarely reported; the most recent are the impacts of deforestation on Orang Asli communities^{202 203}. If this effort gains traction and is supported, more impactful storytelling on the environment and climate may become available to a wider general audience.

The constraints on newsroom resources restrict the development of quality climate and energy transition reporting in Malaysia. For example, there are concepts and terms that not every journalist or editor interviewed felt they understood, e.g. carbon markets. Many journalists also admitted they did not understand what greenwashing entails. This might be a concern as Malaysia is relatively new (also, with a history of poor governance and institution integrity) on market-based instruments of carbon pricing and nature-based solutions²⁰⁴, to name a few, to achieve the net zero target. Several editors shared their thoughts on this: "It's difficult [to call out greenwashing] if journalists don't know the subject matter."

Hence, "there may be "quite a lot of things that are passed off ... and [are] not fully scrutinised as greenwashing." Another pointed out that "because news reporting is event-centred rather than interrogative or investigative, plus all the other issues newsrooms face, it is hard for journalists to call out greenwashing."

Similarly, in response to new climate-related policies, announcements, and master plans announced by the government in the past few years, a journalist said that "there is a need to examine and probe them," however, "the bottleneck is knowledge, time and resources for newsrooms." In addition, not all journalists take these policies and plan seriously when

they "don't have time to track their progress to see if any of them are impactful ... or if it's going to be implemented or not, especially when there's a government change." Under these circumstances, some journalists, according to an editor, "are basically regurgitating the press release" rather than writing articles that translate what these policies mean that are relevant for readers.

What can Institutional and External Funders do? *Funding climate desks*

- Instead of funding climate and energy transition story grants on a per-project basis, as is the current model, a suggestion was raised to support the development of climate desks by funding the salaries of one to two specialists as an alternative.
- It is recommended that the government (either through Khazanah, Ministries of Communications and NRECC, to name a few) play a role in financially supporting local journalists to attend conferences or multilateral spaces to cover climate and environmental commitments and obligations Malaysia is party to.

What can Media Organisations do? *Fundraising*

Fundraising to develop climate desks is a complex process to maintain the independence of news media and it needs creative solutions and networking across regional and international media landscapes.

5.5 - Where's the Data?

According to the journalists interviewed, better access to official government data and information across the climate and energy sectors is crucial. Where there is public information, journalists may have to pay a fee that is prohibitive, for example, for meteorological data under the AKTA Act. Government data is also cited as not being digitised, dated or incomplete, forcing journalists to look elsewhere. One editor told us that without sufficient data and information, "these stories do still get told, but they end up generating more questions, so it's just a never-ending list of questions with no data and answers."

This issue was the subject of an article published by The Star columnist Dr Milton Lum, who identified a lack of government information on the effects of climate change in Malaysia¹⁰⁷. Instead, he used data from the United Nations, World Bank, Global Forest Watch, and Asian Development Bank to demonstrate how climate change has impacted Malaysia over the last decades.

A Freedom of Information (FOI) Act would greatly benefit journalists, especially data and investigative journalists; only Selangor and Penang have enacted such an act. Despite calls from civil society for reform, no attempt has been made to motion for FOI in the federal Parliament²⁰⁵. This has given rise to local initiatives to provide information or aggregated official data that is not publicly available. One is the Sinar Project, a "civic tech project employing open technology, open data and policy research to systematically make vital information public and more accessible to the Malaysian people". It aims to "improve governance and encourage greater citizen involvement in the public affairs of the nation by making Parliament and [the] Malaysian Government more open, transparent and accountable."²⁰⁶ Its report on Data Journalism Assessment in Malaysia with Internews revealed the innovative solutions journalists use to obtain information in a restrictive environment²⁰⁷.

Data accessibility and transparency are deep systemic issues permeating all levels of governance in Malaysia. It is a problem shared by many, including news media, academia and civil society organisations, and certainly not unique to Malaysia. According to Imelda Albano, senior coordinator for the Philippines and the Pacific Region at Internews Earth Journalism Network (EJN), the Philippines shares the same issue, and journalists rely on non-government sources for data²⁰⁸. The executive director of EJN, James Fahn, suggested a solution from his decade of reporting on the environment beat in Thailand: there is power in numbers. He was quoted in a report by the Centre for International Media Assistance on the formation of the Thai Society of Environmental Journalists: "We found there was more clout in numbers. If one of us asked the Minister of Industry why companies were dumping mercury in the Gulf of Thailand, he could ignore us, but if a whole group of us asked, we were much harder to ignore"²⁰⁹.

5.6 - Looking Ahead

The journalists interviewed concurred that there is space for more climate reporting in their news media, "but the only thing stopping us from doing more is resources," according to Aidila Razak, the special projects editor. "Climate is the biggest story of our lives," which should justify the investment, but newsrooms need to justify the expense as it is still unclear if readers are interested. She adds, "maybe, as we publish more of the stories, we [would] have more data to show that it's actually something people want to read." Another journalist, Kalash, who works on the culture desk in a digital media house, agreed that the media has to instil a new culture of pursuing more climate stories. To gain readers, stories must go beyond the surface and dig deeper.

Younger journalists see long-term prospects in climate reporting. Readers would associate journalists or newsrooms with their quality climate reporting, which opens up other local and international opportunities. As Aidila adds, it is an essential topic for journalists to understand because climate challenges will not be resolved anytime soon, so "journalists will be reporting on this for the rest of their reporting careers."

Editors are also the gatekeepers to getting more climate stories published. Whether the journalist is able to write "a good story on climate change ... depends on our editors to give us the chance." A journalist from the national news agency says the advantage would be a wider readership, which she feels can convince policymakers to take action.

However, due to the breadth, complexity, and intricacies of the topic, from the scientific to the geopolitical tangles, journalists find energy transition and climate change topics challenging to report properly on. In general, journalists agreed there needs to be more workshops and training relating to climate and energy transition reporting. It was also suggested these workshops be catered for editors as well. Besides training, journalists also suggested developing resources and "cheat sheets" to enable reporters and journalists better grasp how to report on climate issues (and view topics from an intersectional climate lens).

Aidila gave an example of a resource for reporting on gender and sexuality issues which were developed by the local NGO, Justice for Sisters, where "they (Justice for Sisters) went to newsrooms to talk to editors about it."

The lack of more discerning reportage of energy transition solutions is also a gap that needs to be addressed. Macaranga's Siew Lyn highlighted that there needs to be "more critical coverage of the slow pace of energy transition and the impacts of transitioning on, for example, hydroelectric power stations versus forests, the disposal of solar panels, [and the] cost of mining the rare earth to power this transition, etc."

"What you need is one editor, a few journalists, and maybe a number of reporters. Ideally ... I would like at least once a month to have one long form or feature-length story on climate issues. It doesn't have to be what is trending that month, but it can be topical. Most important thing is to have specialists because the regular journalists don't have time."

Data: What can the Government do?

- The government has an obligation to ensure data availability, reliability and accessibility where a standard participatory model is adopted for greater engagement across citizens, NGOs and CSOs. Under the national framework to implement Malaysia's SDG goals (2016-2030), "strengthening data readiness and filling data gaps to develop a comprehensive dataset for SDG implementation" has been identified as an initiative. For example, data integration and sharing should be streamlined, publicised, and digitalised.
- Climate impacts and risk data, policies, and other relevant documents, such as EIAs, agreements or climate databases of local and national interest, should be made publicly available in full and without exorbitant fees to encourage transparency and confidence.
- A summary of key ideas/points is essential for increasing the readability of technical and policy documents in order to improve the accessibility of official communications on a larger scale.
- The development of a federal Freedom of Information Act should be a priority for the government as it fosters good governance and trust.

Looking ahead: What can NGOs/Institutions do?

- Capacity building for journalists and editors in climate and energy transition topics. Given the breadth and complexity of these topics, there was a preference for stand-alone subject matter training workshops (e.g. water, energy, carbon, biodiversity, COP, IPCC reports etc.). Media organisations such as Malaysian Press Institute, with supportive organisations, could organise to design and provide such training. Other resources suggested by journalists include issue-specific toolkits or handbooks.
- A supportive network for journalists working on climate issues. There are several existing models to learn from in the region or internationally. As suggested by a journalist during the Lensa Iklim workshop series, institutions, such as the National Union of Journalists Malaysia, could be encouraged as a platform to explore such possibilities.
- Improved communication and information sharing between stakeholders and the media to write more effectively on climate and energy transition issues. For example, several editors suggested that as current news media practice is highly reliant on the use of media releases, NGOs, CSOs, other stakeholders, and research groups could release more of these, at the same time, cultivate relationships with journalists and, in particular, the mid-level editors.
- Create a platform for regular meetings with media practitioners and key stakeholders in the climate and energy transition. For example, NGOs, CSOs, scientists, researchers, and agencies should collaborate to better understand critical issues and build trust and partnerships. This will also allow NGOs and CSOs to have a clear grasp of the news media process (e.g. editorial hierarchy and newsroom routines) and, vice versa, build trust and relationships. This will significantly benefit younger journalists, who may need help establishing resource networks.

Looking ahead: What can News Media do?

- Develop long-term strategies to cultivate readers on climate and energy transition issues while nurturing the capacity of newsrooms in terms of skills and source networks (see above) required.
- Collaborate with local, regional and international newsrooms on climate reporting initiatives.
- Given how newsrooms train reporters and journalists to cover critical events such as general elections, a suggestion was raised that such preparations could be adopted for climate and energy transition coverage.

6. RECOMMENDATION



6.1 - Supporting community journalism and collaborative journalism

Where communities most vulnerable to the impacts of the climate crisis and energy transition, such as the Orang Asli, have been underrepresented in the media compared to other stakeholders, the media has an important role in empowering them by providing them space to be heard. An example of this, "*Orang Asli Kelantan berbelah bahagi bila pembalok datang bawa duit*" (EN: *Kelantan Orang Asli divided when loggers come with money*)⁶² written by members of the Jaringan Kampung Orang Asli Kelantan (JKOAK) published by Malaysiakini and supported by an Internews Malaysia grant, gives the community a journalistic opportunity to tell their stories in their own words.

This was part of Suara Masyarakat (EN: Community Voices), a programme by Internews Malaysia to amplify the voices of women, minorities and marginalised groups in the media. Suara Masyarakat, a three-year programme that ended in December 2022, also included a citizen media programme to mentor Malaysians interested in telling stories important to them and their communities²¹⁰. The environment was one of the top three themes featured by the mobile journalism mentees, covering stories from women in wildlife conservation to youths and the climate movement. "This shows demand and interest by both professional and citizen journalists to do environmental reporting," according to Nadiah Rosli, Suara Masyarakat programme director.

With the ease of availability of digital technologies, some Orang Asli communities have begun to investigate and document encroachments in their native customary territories; thus, collaborative journalism between communities and journalists has become a viable option. This was exemplified by the multimedia journalistic project "*The Village Journalists of Kampung Ong Jangking*"²¹¹ by The R. age (an investigative journalism project by The Star) in collaboration with members of Kampung Ong Jangking and supported by the Bertha Foundation; on the destructive impacts of deforestation on their customary claimed lands. A simplified version was republished in The Star's national news section²¹².

6.2 - Underrepresented media topics that could be explored

This list of recommendations is inexhaustible, however, the following are just a few that were raised as gaps in this research.

- **UNFCCC Conference of Parties (COP).** For the last two COP sessions, the Malaysian media has mostly relied on international newswires for stories. On energy transition, The Star and The Edge published pre- and post-COP updates on Malaysia's interests, including views from NGOs. What positions were the Malaysian delegations negotiating for, what was the basis of those positions, what were the outcomes, and what do these mean for Malaysians? Stories from the main conference and relevant side events with a human interest angle, such as the impact on jobs, cost of living, and the local economy, would be more accessible to a general audience.
- **A human angle to the energy and energy transition story.** There have been more of the human angle pursued in flood disasters of 2021 and 2022, but much less for energy transition, apart from the features of coal. For example, what is it like living close to a crude oil refinery (noise pollution from constant flaring, odour pollution) or a natural gas plant, a rare earth mine, or to be displaced by a hydroelectric development? This could be a human rights story, a health crisis story, or a story seen from the gender or disability community perspectives.
- **What can the rakyat do?** Narratives on cultural and behavioural changes for adapting to the climate crisis are largely missing. The media mainly covers the perspectives of governments, businesses, and industries but neglects communities (especially local knowledge) and the realities of vulnerable groups. Exploring factors that drive cultural and social change, such as research on the psychology of social change, behavioural sciences and environmental or climate communications, is necessary.
- **The broader implications of energy transition plans, such as solar and hydropower, on the environment, including land use, deforestation, biodiversity, and native customary lands, raises the issue of trade-off between energy production and the preservation of land, forests and marginalised communities.** The land use and impacts of large-scale solar have not been covered, nor has rare earth mining – Malaysia has significant rare earth deposits and could be gearing up to capitalise on this due to the expansion of renewable energy use. The displacement of indigenous communities by development projects and their resettlement experiences have not been widely reported, and alternative solutions have not been explored. For example, the social impact of the Nenggiri mega-dam on Temiar Orang Asli in Kelantan has not received adequate media coverage.
- **Exploring the root causes of cross-cutting issues.**
 - a. **Industrial pollution and water and waste management.** There have been instances of water treatment plant (WTP) shutdowns in Selangor caused by industry-linked water pollution, and similar situations in Johor's Sungai Kim Kim, while not directly tied to climate change, could become

more prevalent as climate-related droughts increase and affect water security – what's the follow-up?

- b. **A comprehensive examination of the underlying reasons for land use changes and development resulting in physical disasters such as landslides and socio-economic threats to farmers' livelihoods and national food security.** In the context of watershed protection for ecosystem health, human health, agriculture and industry, how will the ecological fiscal transfer work?
- **Climate impacts, risks, and solutions across various sectors.** Aside from the Macaranga and The Star story exploring paddy farmers' perspectives in Peninsular Malaysia, other vital sectors such as water supply and management, forests, marine and coastal areas (including coral reefs, mangroves, fisheries, coastal erosion, and the impact of sea level rise on coastal communities and resources) could be examined. It's also essential to investigate the effects of aquaculture and coastal reclamation on water and food security in more detail.
 - **Focus on specific technical aspects of the energy transition.** Why are the deployment of CCS, CCUS, and carbon-based mechanisms sometimes referred to as false solutions? Who are the winners, and who are the losers in carbon markets?
 - **Institutional solutions, like laws, reforms and amendments, judiciary, constitution and justice.** Environmental rights have received the international spotlight following the UN General Assembly's adoption of a landmark resolution recognising the right to a clean and sustainable environment as a universal human right. Stories focused on institutional reform and laws are also necessary, as they provide insight into effective enforcement and good governance. For example, Malaysia is introducing the Climate Change Act. What does it entail? Local government elections could be reported from an environmental angle, as unsustainable urban planning, flooding, water disruptions, and disaster risk management needs local planning and implementation.
 - **Emerging narratives and concepts.** For instance, degrowth²¹³ ecological economics has been gaining popularity in developed countries, but is it appropriate for Malaysia?



7. CONCLUSION



It is widely acknowledged that climate and energy transition is a complex topic for the media to report well on, not just for Malaysia's media. In Malaysia, decisive climate action is still in the early stages of national discussion and development. Malaysia may have stated its aspirations on a challenging net zero target, as well as methane and deforestation pledges, but details of specific roadmaps to achieve these are not fully outlined.

The Long Term Low Emissions Development Strategy (LT LEDES), National Adaptation Plan, and Climate Change Act are all still in the process of completion by the government. Only the NEP, setting national energy aspirations toward 2040, is currently available.

The current lack of statutory climate or energy targets, larger picture roadmaps and sectoral strategies, as well as the difficulties accessing official data relating to the environment or climate impacts and risk in Malaysia, present challenges for journalists pursuing this area of reporting, often resulting in articles that have "more questions than answers", as a journalist described. The challenges in terms of access to data also hamper sectors other than the media, for example, the financial institutions, which require clear climate impact and risk data to be able to chart strategies for their clients' decarbonisation goals.

Newsroom limitations such as lack of funding and staffing resources also add to the challenges of effectively reporting climate and energy transition. This translates into these topics

being vastly underreported and lacking a diversity of sources and views, particularly for hard news that dominates the energy transition news told from the perspectives and interests of the government and businesses, especially the country's major energy corporations. Further, without sufficient time and resources to fully understand the complexities of climate and energy contexts, journalists on a general desk are unable to specialise in the rigours of climate transition reporting. The implications are understated. For instance, newsrooms frequently report on national and corporate goals for climate and energy, such as net zero outlined in the National Energy Policy, without scrutiny or critical evaluation.

Unsurprisingly, most sampled articles were straightforward and single-sourced, based on events and press statements, especially in hard news articles. More critical and in-depth articles came from opinion pieces (op-eds) or commentaries by subject matter experts, including scientists. Similarly, nuanced viewpoints are illustrated in longer-form articles and features by freelance writers, journalists in niche or specialist media and on grant-funded special projects. Although some in-depth features on coal in Malaysia exist, other energy topics such as large-scale renewables like LSS and large hydropower to the emergence of technological solutions such as CCS and CCUS have yet to be explored as much. Notably, there have also been more in-depth features on deforestation and other climate impacts than on areas of the energy transition. Yet more is required as the climate crisis will affect all areas of the economy, society and our natural resources.





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ANNEX

ANNEX: List of journalists interviewed

We would like to thank all the journalists and editors who graciously offered their time to be interviewed for this research. The following are those who had consented for their names to be listed:

Nuradzimmah Daim, New Straits Times
Kalash Nanda Kumar, The Vibes
Soon Li Wei, Bernama
Lim Ann Gee, Oriental Daily
Aufa Mardhiah, The Malaysian Reserve
Tan Zhai Yun, The Edge Markets
Melisa Idris, Astro Awani
Liew Teck Lai, Sin Chew
Aslah Razali, Bernama
Aidila Razak, Malaysiakini
Najmuddin Najib, New Straits Times
Wong Siew Lyn, Macaranga

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Persatuan Kesedaran dan Keadilan Iklim Malaysia (Klima Action Malaysia - KAMY) is a climate justice and feminist organisation led by young people to push for the climate emergency declaration in Malaysia. We believe that nurturing meaningful partnership, peacebuilding and strengthening constituencies across civil society organisations and vulnerable groups like Indigenous communities, women and youth, set the foundation for people-led climate action.

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