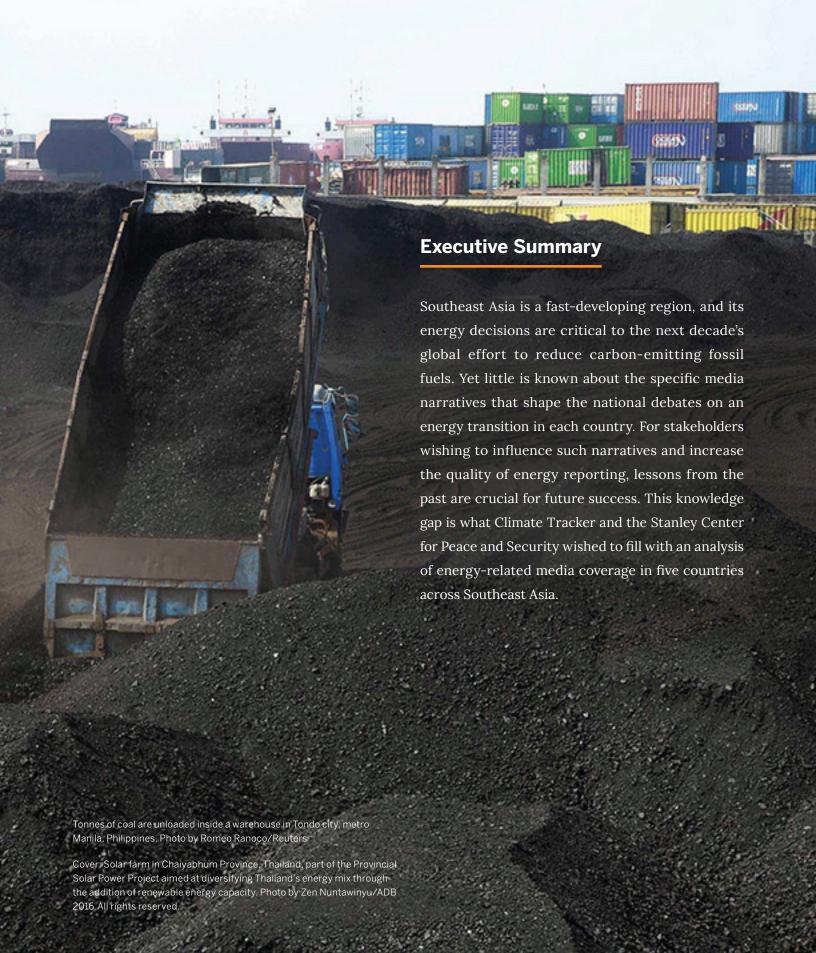
COAL AND RENEWABLE ENERGY REPORTING IN SOUTHEAST ASIA: A MULTICOUNTRY COMPARATIVE ANALYSIS

By Mai Hoang | Climate Tracker Southeast Asia Lead

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Each of the countries in our study-the five "tiger cub" countries of Indonesia, Thailand, Vietnam, Malaysia, and the Philippineshas a unique media landscape with different challenges and opportunities for energy reporting. However, some trends proved to be universal in our analysis. Media attitudes toward coal in each country closely correlated with how much the energy mix and the economy relied on coal; in coal-exporting Indonesia, 67 percent of articles about coal portrayed it positively, while in Thailand, where coal barely makes up a fifth of the energy mix, 80 percent of articles advocated for a gradual phaseout. The other three countries, Malaysia, the Philippines, and Vietnam, are in more of a transition phase, where coal is starting to lose its previously strong grip on the energy narrative as the new decade begins. The Philippines announced a moratorium on all new coal projects in October 2020, two months after the end of our analysis time frame, and Vietnam is expected to follow suit with its upcoming Power Development Plan. More articles framed coal negatively than positively in those two countries, although a significant number of stories still argued that new technology, such as ultra-supercritical boilers, can make coal "clean."

Meanwhile, renewable energy (RE) was more frequently framed as a lucrative, booming market with much profit—making potential rather than a long-term replacement for fossil fuel as baseload energy. Although there were more positive stories about renewables than coal across all five countries' media, these narratives rarely made connections between renewables' growth and lowering emissions to curb climate change.

Overall, energy stories were mostly told from an economic-development perspective, sometimes at the expense of environment and human-impact stories. This is difficult to counter in a region developing so rapidly. As part of the biannual Association of Southeast Asian Nations (ASEAN) summit, the five tiger cub countries signed onto the Regional Comprehensive Economic Partnership (RCEP), a trade deal with the rest of ASEAN and Australia, China, Japan, New Zealand, and South Korea. Though hailed as "the world's largest trade pact," RCEP did not account for long-term environmental concerns and sustainable development in the signatory countries. This is typical of trade deals that the tiger cub economies enter into, and their energy deals as well. On November 20, 2020, the energy ministers of ASEAN+3 (i.e., Japan, China, and South Korea) met to discuss energy collaborations in the next five years, emphasizing the "strengthening of trade promotions with the new role" of clean coal technology. Sustainability was broadly considered, but specific environmental concerns were neutralized by the economic-development imperative.

To what extent this narrative was reflected in energy reporting across the region served as the focus of our media analysis. Overall, our ten researchers from Indonesia, Malaysia, the Philippines, Thailand, and Vietnam studied more than 2,700 articles from leading media outlets in their countries to answer the question, "How do Southeast Asia's leading news outlets frame coal and renewable energy development, and why?" A

cross-country comparative analysis of their individual findings yielded the following trends:

In terms of thematic framing:

- Coal. The media's narrative on coal highly correlated with a country's coal dependency. This is apparent when comparing the number of procoal stories as a percentage of total coal stories versus coal capacity as a percentage of total energy capacity for each country.
 - Sixty-two percent of Indonesia's energy capacity depends on coal and 67 percent of its coal articles framed the energy source positively, the most of all the tiger cub countries. Any environmental concern related to coal was often neutralized by technlogical developments such as ultra-supercritical boilers that will allegedly make coal "clean."
 - At the other end of the spectrum, only 18 percent of Thailand's energy mix comes from coal, and only 19 percent of its coal articles were procoal. For this gasbased country, coal was framed as dirty, harmful to surrounding communities, and generally regressive for national development.
 - In the middle are Malaysia and Vietnam. Forty-four percent of Malaysia's energy comes from coal and 44 percent of its coal narratives were positive; for Vietnam, the percentages were 33 and 32 percent respectively.
 - Only the Philippines stands out for not closely following this trend, as 44 percent of its electricity relies on coal but only 39 percent of articles painted this fossil fuel in a positive light. Factors that potentially contributed to coal being framed more negatively in the Philippines are the country's frequent climate disasters and a strong civic movement against coal.
- Renewable energy. Meanwhile, renewable energy was predominantly framed as a lucrative industry for potential investors. The more renewable energy contributed to a country's energy mix, the more in-depth local reporting on this topic became. However, not all renewable energy types were treated alike:
 - Wind: Across Southeast Asia, wind presents the largest missed opportunity in renewable energy reporting. Although improving technology and the region's vast wind potential mean that wind could be the cheapest energy form in Southeast Asia, inadequate Feed-in-Tariff (FiT) policy has failed to attract investment. Reporters wrote about wind less often as there was not a strong business case for it, without examining why this is the case. In all countries examined, wind is among the renewable energy technologies that received the least coverage, at less than 10 percent the total article sample.

- **Solar:** In the tiger cub countries, the term "renewable energy" was most often used to refer to solar power. Solar took up the largest portion of renewable energy articles, and in four countries except for Indonesia, the largest portion of all energy articles as well.
 - Vietnam, as the country with the most solar power installations in the region, stands out for having the most articles that provided specific policy critiques for solar development. Articles differentiate between photovoltaic farms and rooftop solar of various scales, identifying specific barriers for each.
 - In the Philippines, solar was mostly framed as a good investment by the mainstream media, though regional outlets in Visayas and Mindanao provided specific criticisms of how certain projects did not meet local communities' needs.
 - In Thailand, Malaysia, and Indonesia, journalists overwhelmingly reported on solar through the business lens, focusing on specific companies and projects.
- **Geothermal:** Southeast Asia represents a fourth of the world's geothermal potential, though this energy type is also underrepresented in media coverage as well.
 - In the Philippines, geothermal most often receivedattention from the state-owned Philippines News Agency, whose focus on "development journalism" aligned with the government's geothermal goals.
 - In Indonesia, the world's third-largest geothermal producer, our researcher only found four articles about geothermal over the course of 18 months, all of which were simple hard news pieces.
- Biomass: There was a negligible number of articles on biomass in all countries except for Thailand, where the Energy for All community-based biomass scheme received positive coverage from mainstream media but more mixed coverage from independent and regional ones. The latter highlighted problems with project execution that led to community dissatisfaction.
- Biodiesel: Among the Southeast Asian countries studied, Indonesia stood out for its high coverage of biodiesel. In the country's leading outlets, biodiesel received universally positive coverage after the government introduced a law mandating 20 percent biodiesel mix. While portraying biodiesel as environmentally friendly, these articles turned a blind eye to the fact that Indonesia's biofuel is generated from palm plantations,

- which replaced previously carbon-absorbing rainforest ecosystems.
- Hydropower: Hydro was not seen as a renewable energy in all the five countries studied. Reporters cited dams' ecological damages and hydropower's status as a traditional energy source in classifying it separately from other renewables.
 - Small-scale hydropower, however, received more positive coverage in Malaysia, where journalists distinguished it from medium and large hydropower projects.

In terms of journalistic practices:

- Most journalists framed energy as an economic story.
 Across all the countries analyzed, more than half of energy articles sampled were published in the economy/business section and exclusively quoted from government or business sources.
 - Energy reporters were typically assigned to the economy desk and developed a small group of government and business sources that they went to for every article.
 In some news outlets, notably in Indonesia, financial ties to coal companies led to one-sided advertorial stories and prevented more-critical reporting.
 - Few energy stories adopted a human-impact frame.
 Community leaders and members were quoted in less than a fifth of the articles in all countries analyzed.
 - As a result, energy reporting through the business lens was mostly nonconfrontational, published after the fact of a project's launch or a policy's implementation. Lacking were stories that provided multiple perspectives and policy recommendations for future developments in the energy sector.
- More often than not, energy articles were simplistic, hardnews pieces that only quoted from one source without providing in-depth analysis of relevant data. Although journalists viewed energy as a complex topic, they did not channel this complexity into their writing.
- Despite these predominant trends, the analysis also revealed evidence of a shift in narratives and attempts by individual media practitioners and outlets to scrutinize their countries' energy choices. There were some early successes, such as Thai news outlets' emphasis on opposition from community members, which contributed to a coal moratorium in southern provinces. Independent media outlets that serve a niche or regional audience generally stood out as being more innovative and inclusive in their approach.

Yet despite the rare outliers, overall, there is a long way to go before clean energy receives the type of comprehensive and diverse reporting this complex and consequential topic deserves in Southeast Asia. Remaining barriers, however, differ from country to country. A more nuanced analysis of how coal and renewables are covered in all the tiger cub nations can aid stakeholders—including journalists, newsrooms, media support organizations, funders, and clean energy advocates—in looking for constructive ways to shift and strengthen media coverage that aligns with climate goals in the region.

Methodology

Our research was conducted over a period of three months and involved five main researchers with experience working as journalists in Indonesia, Malaysia, the Philippines, Vietnam, and Thailand. Five other researchers contributed analyses of specific case studies conducted over the course of one month. Unless otherwise noted, the researchers analyzed reporting published from January 2019 to August 2020. The research involved four key phases: article sampling, content analysis, framing analysis, and interviews with editors and reporters.

1. Sampling

Each of our five main researchers sampled articles from at least five online news outlets in their country. Of that sample, at least one outlet had to be "independent," although the definition of independent media varies from country to country depending on local media laws and ownership structures. Researchers either used keyword searches or manually scrolled through the media archives. For more information on the sampling method used in each country and the five case studies, please consult our national reports.

2. Content Analysis

For the content analysis, all Climate Tracker media researchers utilized a standardized coding method developed with the researchers' input. Using this method, they analyzed articles according to 22 parameters in five categories: Article Type, Thematic Focus, Broader Framing, Energy Literacy, and Sources Used.

3. Framing Analysis

From all the chosen articles, a representative sample of at least 30 articles per researcher was then selected for more in-depth framing analysis, which involved asking questions about each article's choice of sources, imagery, and discursive strategies. The framing analysis template can be found here.

4. Interviews with Journalists

In total, 99 media practitioners, including editors, reporters, and columnists, were interviewed throughout this research. The interviewees were chosen based on their experiences in energy reporting in mainstream online news outlets in the five countries.

COAL **Key Country Findings** Though they are similar in having the fast-developing economies of Southeast Asia, the five tiger cub countries are otherwise vastly different in their policies on energy and the press. Before diving into an analysis of the various trends across the region, therefore, it is important to present an overview of energy reporting in each of the countries: Indonesia, Malaysia, the Philippines, Vietnam, and Thailand. For a more in-depth analysis, please refer to the full national reports here. A barge of coal in Indonesia's East Kalimantan Province. Photo by Yusuf Ahmad/Reuters/stock.adobe.com

Indonesia

Lead Researcher: Ari Ulandari

Case Study on Omnibus Law: Cherika Hardjakusumah

Indonesia has the fifth-largest population in the world and the largest in Southeast Asia. With relatively few restrictions to establish media outlets, it has both the largest market and media industry in the region. However, the country is also experiencing rapid media convergence, as 12 major media conglomerates dominate the landscape and mold reporting to serve the owners' interests.

Our main researcher in Indonesia, Ari Ulandari, examined seven news outlets, six of which were owned by the 12 major media conglomerates: *Kompas*, *Tribunnews* (owned by Kompas Gramedia), Liputan 6 (SCTV-Emtek), Okezone, *Sindonews* (MNC Group), and detikNews (CT Corporation). Only Kumparan, an experimental news site dedicated to "community reporting," belongs to a new, smaller player.

Two of the media conglomerates listed—MNC Group and CT Corporation—have stakes in the coal mining industry via subsidiaries in the energy business. The three publications they own are responsible for half of the articles that framed coal as indispensable for Indonesia's economy found in our sample. Okezone, for example, published an article that suggested, without any concrete evidence, that with the latest ultra-supercritical coal-burning technology, Indonesia can still develop coal while meeting Paris Agreement goals.

Meidella Syahni, a Mongabay journalist who used to work in mainstream media, explained the financial ties that may cloud editors' and reporters' judgement. "When a media organization grows into a for-profit media conglomerate, it expects revenues," she said. "Advertorial collaborations and other [financial ties] affect any issue reported, including energy issues." Overall, our researcher Ulandari examined 350 articles across these seven outlets to find that despite some concerns raised about potential social impacts, "king coal" was still framed as the future of energy in Indonesia.

This situation is closely tied to the fact that for Indonesia, coal is not just an energy source but also a major mining industry, with some of the largest proven coal reserves in the world. The second-ranked country for coal reserves in the region, Vietnam, has less than 10 percent the amount of coal Indonesia has.

In our regional media analysis, Indonesia was the only country where more than 50 percent of articles sampled focusing on coal framed it as quintessential for the nation's economy. Articles emphasized that coal mining plays an indispensable role in national development despite its potential environmental harms. Notably, more than 50 percent of these articles used only one source of information: either government or business representative. For example, Yohana Artha Uly, a journalist of Okezone, wrote an article about the government's coal gasification strategy headlined "Reducing LPG Import, Government Encourages Coal Gasification to Be a Strategic Policy." The story began with a brief introduction of the government's coal gasification plan, then listed the coal companies that will be the main target. Uly used only one source, the minister of energy and mineral resources, who said gasification would add value to coal and thus become a national priority for the next five years; the story did not discuss any other implications of coal gasification policies.

On the other hand, renewable energy is still in its nascent stages of development in Indonesia, with hydro making up about 12 percent of the nation's energy; solar and wind installation remain largely

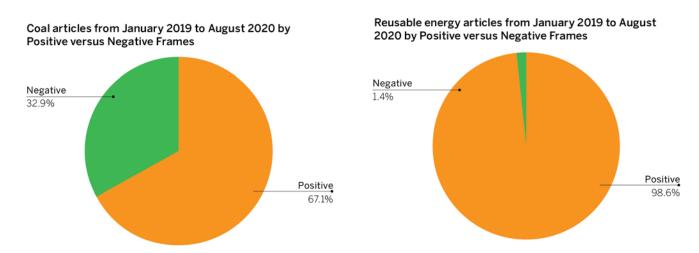


Figure 1. Breakdown of positive versus negative frames for energy articles in Indonesia.

nonexistent. Nearly half of renewable articles discussed renewables as a general, abstract concept and provided no specific insight into the different technologies and their applications. *Kompas* editor Erlangga Djumena noted that renewable energy "has limited sources [for journalists to cite/interview], because it is still rare...plus the sources are too technical. Not only the readers, the journalists are sometimes confused." Because of this lack of understanding, it was difficult for journalists to dive deeper into a specific renewable energy source.

More than 98 percent of renewable energy articles, however, framed it in a positive light, arguing that renewable development would ensure energy security for Indonesia while reducing its carbon emissions. In contrast to other countries' media, articles in Indonesia omitted mentions of a coal phaseout as necessary for reducing emissions, arguing instead that replacing oil and gas—which the country currently imports—is enough.

Biofuel and solar were the only two renewable energy sources discussed in greater depth in Indonesian media. The country's rapid development of biofuel, boosted by a 20 percent biodiesel mandate, is universally praised. One article even misleadingly claimed "RE Growth Rate in Indonesia Is the Highest in the World," even though this high growth rate applies only to biofuel. Moreover, Indonesia's biofuel comes from palm oil, a highly controversial industry tied to widespread fires and deforestation in the country, making it hardly sustainable. These nuances were nowhere to be found in mainstream outlets.

To conclude, an in-depth analysis of coal and renewable energy reporting in Indonesia revealed that Indonesian media outlets framed coal as a major player in the country's energy future. Despite some articles that highlighted coal's negative impacts internationally, domestic coal mines and power plants were portrayed as an indispensable part of the country's economy. Renewable energy was framed as a positive development, though its role in the energy mix was to replace oil/gas and supplement coal rather than act as baseload power.

Case Study

Even when the controversial omnibus law and the revised mineral and coal law were discussed in Indonesian media, most criticisms were directed at the undemocratic process by which the laws were passed, rather than the social and environmental impacts of coal mining itself. The only stories that directly presented coal's impacts on Indonesians' life were stories about "illegal" coal mining activities. The differentiation between "legal" and "illegal" coal mining, however, shifted attribution of blame to the illegality of some mining projects rather than the inherent dangers of coal mining itself.



Ari Ulandari | @Ulandari_ari

Ari Ulandari is a writer and researcher focused on environmental issues. Previously, she worked as a content writer at Kumparan. Her master's thesis discussed the 2002 Bali bombings. As a free-lance writer, she uses her skills to provide more information about environmental movements, especially the climate movement.



Cherika Hardjakusumah

Cherika Hardjakusumah is a research and communication specialist with over five years of experience in multifaceted career roles in Europe and Asia. She is passionate about climate and energy issues and has worked on various research projects related to palm oil, biofuels, and solar energy. Hardjakusumah is keen to learn more about energy access and low-carbon economic development, which she finds highly relevant to her home country, Indonesia. When she is not working on energy issues, she enjoys discussing cultural interactions, diversity, and inclusion on her podcast channel.



Malaysia

Lead Researcher: Ili Nadiah Dzulfakar

Though Malaysia borders Indonesia and shares many cultural ties with its neighbor, this country has a very different energy and energy reporting landscape. In the past two years, this country has seen two major shakeups in the government, which resulted in shakeups in energy and media policies as well.

The ruling Barisan Nasional (BN) coalition—which owned most of the nation's mainstream media outlets—lost its hold on parliament for the first time in history in 2018, after being defeated by the opposition Pakatan Harapan (PH) coalition. The Star and the New Straits Times—two online outlets examined by our researcher Ili Nadiah Dzulfakar—are digital versions of English broadsheets with the highest readership in the country and are partially owned by two parties in the BN. During the parties' 61 years in power, The Star and the New Straits Times gained a reputation for being strictly progovernment. Dzulfakar compared their coverage with that of The Edge and the Malaysian Reserve, two privately owned business outlets, as well as Malaysiakini and Free Malaysia Today, two independent online portals.

Upon assuming power, the PH government liberalized the press as well as the energy sector, passing 80 energy initiatives in 2019 generally seen as conducive to renewable energy growth. After examining 344 energy articles across all six news outlets, Nadiah found that the start of 2019 saw a large number of renewable energy articles, more than 87.5 percent of which framed such technologies positively. Echoing the energy ministry's stance,

most journalists framed renewable development as quintessential to "diversity the fuel mix" and ensure energy security for Malaysia.

Even when they were no longer owned by the ruling parties, Malaysia's mainstream outlets showed a clear deference to authority in energy reporting. Articles about energy reform policies relied heavily on quotes from government representatives, particularly Yeo Bee Yin, former Minister of Energy, Science, Technology, Environment, and Climate Change, and officials from the Sustainable Energy Development Authority. For example, in an article about energy reforms, The Edge quoted Minister Yeo as saying, "We are heavily reliant on fossil fuel. We'll always be susceptible to global fuel prices. ... We are talking about at least more than half of your electricity bill [being dependent] on something that you cannot control." With this, she called for an increase in renewables capacity to "diversify the country's fuel mix for electricity production." One might say that the PH government deliberately shaped public perception on renewables, promoting them as an important factor in future power sector growth across all the mainstream outlets examined. The normalization of renewable energy development and energy diversification thus became headliners for other structural changes within the energy industry pushed by the new PH government.

Beyond the government policy framework, renewable energy in general and solar energy in particular were seen through the economic lens in 35 percent of the renewable energy articles examined.

Solar was framed in terms of present and future potential as a money-saving mechanism for individuals, businesses, and the government-a view championed by big industry players, government officials, banks, and nongovernmental organizations (NGOs) alike. In 2020 in particular, solar was seen as a key sector that will reactivate Malaysia's economic recovery post-COVID-19; two articles displayed an optimistic attitude in framing rooftop technology as an important economic driver that will meet Malaysia's electricity demand, which is expected to rise again soon.

The increasing push for renewables corresponded with a rise in articles that criticized coal in Malaysian media. The PH government's press liberalization meant the leading news outlets could be more emboldened in publishing opinion

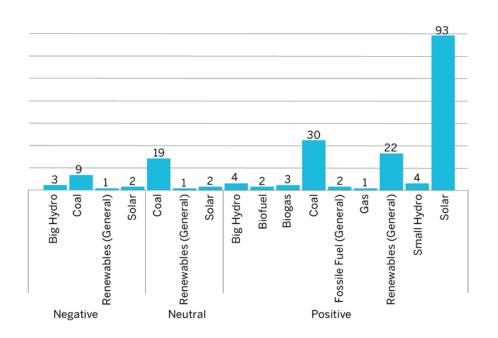


Figure 2. Compared with other energy sources, solar was framed in Malaysian media as a good business investment in the largest number of articles, outnumbering coal three to one.

pieces critical of the status quo—in this case Malaysia's remaining reliance on fossil fuels. From 2019 to 2020, 46 articles across six news outlets framed coal as dirty and backward; 18 of these were opinion pieces from columnists or energy experts. The Star stood out for publishing five op-eds from columnist Mangai Balasegaram who repeatedly made the connection between coal development and climate change, quoting from a variety of sources, including academics, NGOs, and the government.

Overall, however, there were still slightly more articles that framed coal positively (52 articles) than negatively (46 articles) as an indispensable part of Malaysia's energy mix—after all, coal still contributes 44 percent of Malaysia's energy capacity. Five news outlets examined—Free Malaysia Today, The Edge, the Malaysian Reserve, The Star, and the New Straits Times—contributed articles that positively described coal as "cheap," "stable," and "reliable"; Malaysiakini was the only one that did not publish any positive frames.

Notably, three-fourths of procoal articles quoted only from business and industry representatives, showing a clear lack of diversity in viewpoints. An editor from a now-defunct news outlet in Malaysia emphasized that procoal stories were mostly told from the businesses' point of view, which also happens to be the most

prioritized point of view in Malaysian media. "Maybe it's the launch of a new power plant...maybe it's about why we should turn to coal right now because it's cheaper, and coal-fired plants are more energy efficient. I mean, those are the articles that [the mainstream media outlets] are most likely to run," he said.

Lack of source diversity seemed to be a common problem in energy reporting across multiple news outlets; all journalists interviewed except for one acknowledged using recurring sources for energy articles. This led to repeated, one-sided viewpoints—usually business/bank/industry/government. Three journalists from The Edge, The Star, and the Malaysian Reserve also agreed they had trouble accessing reliable sources for interviews.

After two years in power, the PH government lost control of parliament in 2020, and shortly thereafter the prime minister resigned. As the country slowly emerges from the ongoing political turmoil, it is still unclear what energy and media policies will be like past 2020. One thing, however, is certain—to diversify the viewpoints presented, Malaysian journalists should receive more support in obtaining reliable nonbusiness sources and pushing for articles that look beyond the economic frame.



Ili Nadiah Dzulfakar | @NadQuarantasei

Ili Nadiah Dzulfakar is currently the coordinator of Klima Action Malaysia, a youth-led climate NGO in Malaysia. She has created local climate content in Bahasa, Malaysia, and content for wide-reaching advocacy, and has collaborated with both environmental journalists and science-based publications. Dzulfakar was born in Malaysia and lived in Germany for 12 years before pursuing an environmental science degree. She enjoys working with data (as much as she enjoys working with people).



Philippines

Lead Researcher: Angelica Yang

Case Study on Geothermal Energy Coverage: Jason Paolo Telles

For the Philippines, a small archipelago with coal contributing 44.5 percent of the power capacity, narratives on coal and renewables are deeply influenced by a small number of commercial media giants. However, unlike Indonesian media conglomerates, which also own subsidiaries in coal mining, Filipino outlets have been more critical of coal in the time frame analyzed. Our main researcher, Angelica Yang, sampled articles from five outlets: INQUIRER.net, Philstar.com, GMA News Online (GNO), SunStar Philippines, and MindaNews. All outlets are owned by a major media corporation, except for the regional MindaNews, a nonprofit media organization that prides itself on independent journalism. Though they told energy stories from different perspectives, all five media outlets were similar in framing the energy future of the Philippines as renewables, rather than coal.

Of the 167 coal articles analyzed, 103 (62 percent) framed coal in a negative manner as a dirty energy source, despite its contributing nearly half the country's power output. In making this claim, the reports, both local and national, heavily quoted from clean energy advocates, concerned citizens, and religious officials who highlighted the destructive effects of coal in communities—although mainstream outlets usually relied more on national figures of authority. Prominent clean energy advocates such as Gerry Arances from the Center for Energy, Ecology and Development were quoted in 46 articles—around half of all those that adopted an anticoal frame.

Other national figures of authority also contributed their voice in these critical reports. The influential Roman Catholic Church, which claims 86 percent of the population as followers, has taken a strong stand against coal in the media. This

was seen in 22 INQUIRER.net, Philstar.com, and GNO reports citing religious officials such as Bishop Gerardo Alminaza of the Roman Catholic Diocese of San Carlos City and the Mindoro priest Father Edu Gariguez.

Coal's reputation in the Philippines was further tarnished after the 2019 power outages, which saw thermal plants, previously hailed for their stability, fail in providing consistent power supply. GNO stood out for publishing 13 of 27 articles that covered coal plants not spared by outages when power reserves were low, perhaps because of the broadcasting channel's focus on electricity availability. Meanwhile, a *Philstar.com* report took it one step further and explicitly identified coal as a barrier to achieving national energy security. Using an economic framing that calls on nationalistic sentiments, it blamed coal for making the Philippines dependent on other countries for its energy supply, as the nation imports 75 percent of its coal from abroad.

Although 62 percent of the 167 coal articles adopted a negative frame, 16 percent, or 21 articles, still portrayed that energy source as "good for the economy." Nearly 40 percent of all procoal stories, however, came from one of the five media outlets, INQUIRER. net, which holds the dubious title of being the only outlet quoting statements from interest groups such as the World Coal Association.

All mainstream outlets, however, including INQUIRER.net, were optimistic about the country's renewable energy development, especially when it comes to solar. INQUIRER.net, PhilStar, and GNO often framed solar as a lucrative investment, quoting business representatives who talked about the economic and environmental impacts of renewables. Despite contributing the least

to the Philippines' current energy output, solar claims the highest forecast growth rate and highest number of articles published from 2019–2020.

Five dominant frames emerged during the framing analysis of solar energy articles. Ranked in order of prevalence, they describe solar as a good investment, good for consumers to save money, able to augment baseload power, a bad investment, and conducive to economic growth. Of these frames, only the fourth demonstrated a pessimistic approach.

Overall, an in-depth analysis of coal, solar, and geothermal energy coverage in the

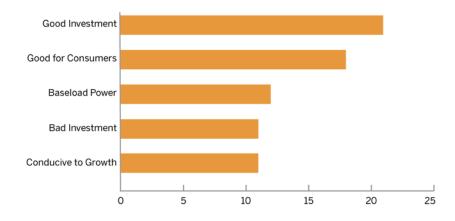


Figure 3. A framing analysis of 72 solar articles in Phillipine media showed that more articles described it as a good investment than anything else.

Case Study

Unlike solar energy, geothermal does not generate enthusiastic coverage in the Philippines' leading outlets. As of 2015, geothermal contributed the largest portion of renewable energy to the Philippine energy mix at 13.4 percent, or 67 times solar's contribution. However, large media companies rarely reported on geothermal energy, publishing only 42 articles over the span of two years as opposed to solar's 200. The only exception to this was the state-owned Philippines News Agency, examined as part of Jason Paolo Telles's case study on geothermal coverage, which views geothermal as part of the government's development program.

Philippines highlights how economic interests drive reporting from national news outlets. This is the result of a reporting process whereby journalists, usually those assigned to the business beat, get news from power suppliers' press releases and conferences and then quote from company leaders for their articles.

Solar power, with the highest forecast annual market growth rate among all energy types in the Philippines (13.4 percent), generated the most media attention and was commonly framed as a good investment for power suppliers and investors. Coal, with a forecasted growth rate half as large as solar but with a much larger share of the existing energy market, got some positive coverage but was more often negatively framed for its environmental and social impacts. Geothermal was barely covered in commercial outlets but received more attention from the Philippines News Agency as part of the government's development program.

Journalists' personal views could decide the coal story angle—an opinion expressed by two editors and one reporter interviewed. Victor Sollorano is a former senior news editor at GNO who edited a number of energy reports from January to December 2019. He said coal is "dirty and hazardous, and its extraction puts a great toll on Mother Earth, particularly open-pit mining." Semiretired *Philstar.com* science editor Juaniyo Arcellana opined in an interview that the shift to renewables is "the natural order of things." These views certainly prevailed in both news outlets' reporting from 2019–2020—and in the Philippines' recent decision to halt all new coal projects, announced a week after the publication of the Philippines national report in this series, *Coal and Renewable Energy Reporting in the Philippines*, on October 28, 2020.



Angelica Yang | @angelicayang

Angelica Y. Yang is a multimedia reporter at BusinessWorld. In addition to being Climate Tracker's Media Research Fellow, she was its Journalism Fellow for the One Earth Program in 2020. Prior to that, she was a junior content producer at GMA News Online for several months.



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Jason Paolo Telles is Assistant Professor of Broadcast Communication at the University of the Philippines. He has many years of experience in broadcast and print journalism, having worked for many of the Philippines' top news outlets, including ABS-CBN, GMA, and SunStar.



Vietnam

Lead Researcher: Nguyen Nguyen

Case Study on Coverage of Four Energy Projects: Mi Hoang

If Malaysia's BN coalition held majority seats in parliament for 61 years and partially owned some leading news outlets, Vietnam's Communist Party has controlled a one-party government for 45 years and virtually owns all media outlets in the country. As expected, any change in this country happens subtly. Lacking are stories about citizens demanding an energy shift and protesting environmental degradation, as reporters shy away from extensively quoting "nonofficial" sources such as local residents and community organizations. A journalist's indiscretion could easily result in an entire online news site's temporary suspension for "posting fake news"—as happened to as happend to *Tuoi Tre Online* in 2018.

Yet incredibly, even when the Vietnamese government threw its support behind coal with the Power Master Plan 7, journalists at state-owned news outlets did not follow suit. Our researcher Nguyen Nguyen examined 268 articles from six news outlets—the mainstream Tuoi Tre Online, Dan Tri, VnExpress, and Zing News, as well as the economic outlet Saigon Times and weekly Nguoi Do Thi—to find that Vietnam's national media have largely framed renewables, not coal, as the country's energy future. It helps that an energy transition has become less of a taboo subject since Vietnam rose through the ranks as the country with more solar installed (4.5GW) than the rest of ASEAN combined, after the government experimented with high solar Feed-in-Tariff (FiT) rates in 2017.

Nearly 66 percent of coal articles in Vietnam criticize the energy source for its environmental impact—a trend led by the policy-focused *Saigon Times* and the weekly magazine *Nguoi Do Thi.* Notably, 93 percent of the 42 stories that framed coal as an environmental hazard quoted environmental experts from public

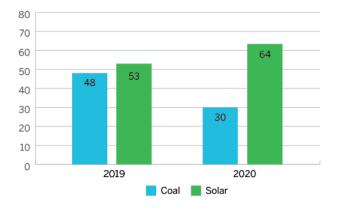


Figure 4. Number of coal and solar stories published in 2019 and 2020 in Vietnam.

universities and NGOs, particularly representatives from GreenID, a nonprofit organization promoting sustainable energy sector development. The NGO appeared in 22 stories—more than half of those that raised environmental concerns about coal. Of major concern to experts were the two types of ashes released from the burning of coal—fly ash, which could contribute to air pollution, and bottom ash, which could pile up and leak into the water source or be distributed in the air. Notably, even though NGO and academic sources were emphasized in anticoal narratives, they were not the only sources quoted; journalists also sought out the perspective of government and industry, although these sources typically do not have the last word.

On the other hand, procoal narratives typically focus on neutralizing the environmental concerns, using one or both of these frames: (1) new technology would make coal clean, and (2) coal is indispensable for national development. More than half of these "procoal" stories were published by Dan Tri, a news outlet run by the Ministry of Labor, and Zing, one of Vietnam's two privately owned news sites. Unlike the anticoal narratives, however, procoal narratives display a blatant lack of viewpoints, quoting only from coal plant investors and Ministry of Industry and Trade representatives.

Whether a news outlet publishes more procoal or anticoal stories seems largely dependent on the personal viewpoints of a few veteran editors and reporters. In-depth analyses of an energy form's pros and cons require the passion and experience of long-time writers who can lobby with editors more easily. This is especially true at the Saigon Times, where nearly 60 percent of energy articles were written by two veteran journalists, Trung Chanh and Lan Nhi. Chanh, who has been writing about energy for the Saigon Times since 2012, said he supported sustainable development and wanted to spread the message in his articles. His specific interest in coal is also geographical. "I live in the Mekong Delta of Vietnam," Chanh said, "and I want to contribute towards the sustainable development of this area. This is part of my responsibility as a citizen to contribute to my region and country." Chanh is proactive in pitching energy stories to his editors, who are generally receptive to his ideas.

A topic whose framing does not seem to vary as much from outlet to outlet is renewable energy. In 2020, the prime minister of Vietnam released the country's most updated FiT scheme, which reanimated media discourse on solar as a lucrative opportunity for investors. In 2019, the number of coal and solar stories was roughly the same, with the former appearing in 48 stories and the latter 53 stories. However, following the release of the new FiT scheme, 64 solar stories were found in the past eight months, doubling

the number of coal-focused stories in the same time frame. Over the past two years, 93 out of the total 117 stories published in the business/economic sections framed solar as a fast-growing market, and 43 stories discussed supportive policy—the old and new FiT schemes—as catalysts for this growth.

Tuoi Tre published the most solar stories among the six outlets, with 37 making up 31.6 percent of total solar articles sampled—most of which adopted the solar-as-lucrative frame. Editor Phi Tuan discussed his newspaper's interest in this energy source. "Solar energy has developed a reputation for being a lucrative investment that could lead to high returns," he said. "It is an interesting story that attracts readers' attention. Major media outlets cannot help participate in the solar boom."

Compared to articles about the same topic in other Southeast Asian countries, the discourse on solar in Vietnam shows remarkable depth in its policy analysis. Because of the recent boom in rooftop solar—Vietnam has more than 45,300 operating rooftop solar systems—potential installers want to get the details right on solar technology and policy, especially if they're interested in selling solar power to the government. Seemingly pedantic topics like the regulatory difference between solar installations on farmhouses versus townhouses generated vibrant discussion.

Overall, an in-depth analysis of coal and renewable coverage in Vietnam highlighted that coal is no longer hailed as the future of Vietnam's energy development because of its environmental impacts and financing difficulties. Solar power, with an attractive FiT scheme, has catalyzed growth at a dizzying pace and generated the most media attention of all energy forms, being framed as a good investment for power suppliers and investors.



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Mi Hoang

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Thailand

Lead Researcher: Sippachai Kunnuwong

Case Study on Coal Moratorium In Southern Thailand: World Wirada Saelim

Case Study on Community-Based Biomass Projects: Kadesiree Thossaphonpaisan

Of all the Southeast Asian countries analyzed, Thailand is unique in never having relied much on coal. With its considerable offshore gas supply, the country has derived half of its energy capacity from gas, while coal makes up only 18 percent of the total output. With the upcoming power development plan, the balance will further tilt in favor of gas, which is framed by all news outlets examined as cleaner and more financially viable than coal—despite also being a fossil fuel with significant environmental risks.

In order to capture a comprehensive picture of energy coverage in Thai media, our main researcher, Sippachai Kunnuwong, analyzed 341 articles across five online outlets: Khaosod, Thai Rath, and Krungthep Turakij (Bangkok Business), three mainstream publications with a digital presence; the Standard, a digital-only news outlet; and Green News Agency, an independent news site published by the Journalists Association of Thailand's Environment Journalist Club. Overall, Sippachai's research revealed that Thailand's energy future is not framed in terms of coal development, while renewable alternatives receive varying levels of support from the media.

Coal is not a popular topic in Thai media, being covered in only 37 articles over two years—the fewest of all Southeast Asian countries studied. Thirty of these overwhelmingly frame coal as detrimental to the environment and Thailand's energy security. Twenty-three articles deploy the moral frame to portray coal as "dirty" and "harmful to people's health," citing Thailand's haze problems of 2019 and 2020.

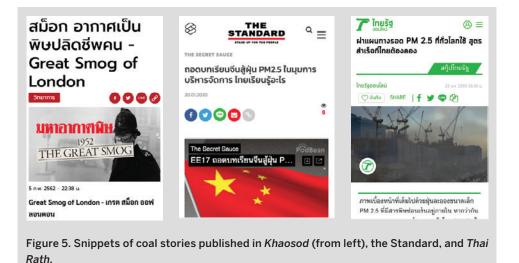
Government and private companies' anticoal pledges were framed as part of their efforts to rebrand as green and modern organizations—even when coal alternatives like gas might not necessarily be less carbon intensive. These media narratives suggested that corporations and state agencies view giving up on coal as good for their image. The Standard reported about how Banpu, Thailand's largest coal producer, rebranded itself with a new motto: "Greener and Smarter." This came with

a new business plan that reduced coal from 70 percent to 40 percent of the company's business and invested in solar energy.

Compared to other Southeast Asian countries, Thailand's reporting on coal stood out for its focus on community opposition to coal power plants. The eight community-struggle stories—which made up 22 percent of the coal-related reports—portrayed coal mines and coal-fired power plants as rallying causes for people's struggles to save their communities' environment and health.

Case Study

The community-opposition frame was clearly observed in TV coverage of debates about proposed coal plants in southern Thailand, as examined in a case study by World Wirada Saelim. From July 2015 to February 2018, conflict between locals and government was found to be the main theme of news coverage on coal issues by all major television channels-Thairath TV, PPTVHD36, CH3 Thailand, MCOT, and Thai PBS. According to all five journalists interviewed in this case study, this is because coal issues were raised by anticoal movements led by local villagers who did not want coal-fired power plants in their communities. Therefore, journalists tended to cover current situations regarding the demonstrations, requests, and concerns of the protesters, how the government reacted, and the conflicts between procoal and anticoal groups rather than reporting about coal through the lens of climate change or mainly focusing on environmental issues.



Only seven of 37 coal-focused articles framed coal as a necessary addition to Thailand's energy mix. These articles were either opinion pieces by government-affiliated columnists or news articles that exclusively quoted from the state-owned Electricity Generating Authority of Thailand and the oil and gas giant PTT public company.

This figure, however, pales in comparison to the 209 articles—or one in two energy articles examined—that positively framed a transition toward renewables as necessary for the future of Thailand's economy and environment. Solar power in particular attracted enthusiastic coverage, making up 60 percent of all renewable energy stories; solar panels were often framed as a new technology that could bring profit to individual Thai investors and a "clean, sustainable and secure future" for Thailand as a whole.

A Thai Rath story portrayed renewable energy as important for Thailand's energy security, stating that the cost of oil and natural gas production will continue to rise because of the US-China trade war, as Thailand still imports these energy sources from abroad. Therefore, the story said, renewable energy that can be generated by Thai households or communities can be a cheaper and more secure alternative. Two senior government officials, including the director of the Energy Policy and Planning Office, are quoted in the story, saying the use of renewable energy will help address growing electricity demands, while solar is the most "preferred" energy resource because it is "cheaper" and "compatible with Thailand's geography."

This energy-security frame was also used by the government to promote Thailand as a strategic energy trader and hub in Southeast Asia. Thai media are proud of the country's solar investment across the region: 23 articles from four mainstream outlets featured glowing reviews of Thailand's solar projects in other countries, particularly Vietnam.

Overall, an in-depth analysis of coal and renewable energy reporting in Thailand revealed that Thai media outlets frame solar and other nonhydro renewables as the country's energy future. Despite some notable exceptions in the op-ed section, coal and hydropower received mostly negative coverage; all available evidence supported that coal is on its way out, at least as far as the media was concerned. Coal alternativesincluding renewables as well as natural gas-were often extolled, sometimes without a critical examination of environmental risks, particularly in the case of natural gas.

Case Study

Biomass is another renewable energy prominently featured, as the Thai government hopes to take advantage of its formidable agricultural outputs to generate power through a program called Energy for All. Kadesiree Thossaphonpaisan conducted a case study of biomass coverage in mainstream versus alternative sources and found that they differ in their framing of the energy source. Nineteen articles in mainstream media framed biomass plants as beneficial for Thai provinces, while 14 articles in alternative media framed it as a source of conflict between villagers and energy investors as well as the state. These articles alleged that the government's biomass development did not truly reflect the communities' wishes.



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World Wirada Saelim

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Kadesiree Thossaphonpaisan

Kadesiree Thossaphonpaisan has been working in the field of human rights and environmental rights in the Mekong subregion since earning her bachelor's degree in 2014. She is passionate about data journalism and using digital technologies to improve human rights work and increase civic participation in environmental and social issues.

Regional Trends: A Comparison of the Five Countries Analyzed

A comparative analysis of coal and renewable energy coverage across the five countries in this study yielded some interesting similarities and differences that will be further explored in this section. We will first discuss the three prominent thematic trends seen in reporting, and then move on to examine two trends in journalistic practices, before ending by discussing significant outliers and best practices observed.

Trends in Energy Framing

Portrayal of coal in media closely approximated country's coal dependency

Though Southeast Asia is often monolithically framed as the region where "coal is still king," there are significant differences in how each country uses this fossil fuel, as well as how civil society reacts to coal development. All these elements affect how coal policy discourse plays out in national media.

Looking specifically at coal reporting in Indonesia, Malaysia, the Philippines, Vietnam, and Thailand, it is striking how much the media's framing of coal depended on how reliant a country is on this energy type. Table 1 compares the number of articles framing coal positively as a percentage of total coal articles versus how much coal contributes to national energy capacity as a percentage of the total energy mix.

Table 1. Positive coal framing and coal capacity in Southeast Asia

has spoken up against coal and been extensively quoted by the press. And although the Philippines is one of the deadliest countries in Asia for environmental activists, it is also a place where grassroots environmental movements are particularly strong. As previously mentioned, prominent energy activists such as Gerry Arances from the Center for Energy, Ecology and Development were quoted in more than half of all articles that criticized coal.

Renewable energy overwhelmingly framed as a lucrative investment

While the tiger cubs' media outlets disagreed on how large a role coal will play in their countries' futures, one thing was clear: they were overwhelmingly optimistic about renewable energy's growth.

Country	Positive frames/coal articles	Coal capacity/total energy capacity
Indonesia	67%	62%
Malaysia	46%	44%
Philippines	39%	44%
Vietnam	32%	33%
Thailand	19%	18%

For three of the countries examined, Malaysia, Vietnam, and Thailand, the difference between positive frames per total coal article sample and coal capacity per total energy capacity fell within 1 to 2 percentage points. Given the margin of error associated with our small article sample size, the only significant outlier was the Philippines, with a 10-percentage-point difference between the two. Even though the Philippines is just as reliant on coal as Malaysia, 103 of 167 coal articles in the Philippines framed the fossil fuel negatively, while only 46 of 113 articles in Malaysia did so.

Aside from possible sampling biases, a few factors can account for the Philippines' disproportionately negative portrayal of coal. The Philippines has consistently placed within the world's five most-climate-vulnerable countries, with ever more intense and erratic typhoons forcing the government and media to be more receptive to an energy transition, at least in rhetoric. Furthermore, the Philippines' Roman Catholic Church, which claims 86 percent of the population as followers, is a formidable institution that

Solar in particular generated much excitement, as seen in the fact that positive articles about it outnumbered those about coal in all countries analyzed except for Indonesia, where the two were equal. Additionally, for four of the five countries, positive frames made up more than 75 percent of total stories about nonhydro renewables (solar, wind, biomass, and geothermal).

The outlier was Vietnam, where only 65 percent of nonhydro renewable stories portrayed these technologies positively. Vietnam doesn't lag in terms of renewable energy development, however; in fact, the country is a definitive regional leader with 4.5GW of installed solar capacity, or more than that of the whole ASEAN region combined. It is not that there were more articles in Vietnam that framed renewables negatively compared to other tiger cub countries; there were more articles that displayed a neutral, cautious tone, which acknowledged Vietnam's renewable potential while highlighting challenges encountered in its development. Common difficulties discussed were unclear regulations, lack of transmission lines, and a tight FiT deadline. Vietnam's

media have been following the solar development story since the first FiT scheme in 2017 led to a massive investment boom; articles went into detail about the minutiae of solar technologies and policy challenges for a mainstream audience. This corresponded with comparatively high solar energy literacy among journalists as well as the average reader. In other words, with the "solar experiment" well under way, journalists in Vietnam prioritized analyzing the remaining barriers to further growth rather than simply promoting solar power or renewable energy as an abstract concept.

In Indonesia, meanwhile, where neither solar nor any other renewable energy technology has been installed in significant numbers, 96 percent of renewable energy articles adopted a positive frame. However, nearly half of these stories discussed renewable energy in the abstract without providing any specific policy analysis or recommendation. Journalists here viewed renewable technologies as difficult to understand and write about in depth. Indonesia's Kompas editor Erlangga Djumena described the situation, saying renewable energy "has limited sources [for journalists to cite/interview], because it is still rare...plus the sources are too technical. Not only the readers, the journalists are sometimes confused." Because of this lack of understanding, it was difficult for journalists to dive deeper into any specific renewable energy source.

Not all renewables were treated alike

When analyzing the articles that do dive into specific renewable energy technologies, it was clear that not all renewables were treated alike by the media. In all countries analyzed, solar received the most coverage as a renewable energy with high potential for future growth; this was true even in the Philippines, where geothermal contributes 67 more megawatts to the total energy capacity.

In contrast to solar, other renewable energy forms—notably wind, geothermal, and biomass—received relatively little attention from media outlets across the region except for Thailand, where the government recently implemented more-aggressive biomass development programs through the Energy for All initiative, which attracted positive and negative coverage. In Indonesia, biofuel turned out to be a close contender to solar in terms of frequency of coverage, as 20 percent of Indonesia's energy articles focused on solar while 17 percent focused on biofuel. Unlike Thailand's Energy for All initiative, Indonesia's B-20 biodiesel mandate received overwhelmingly positive coverage, despite its potential environmental risks.

Meanwhile, despite being a renewable energy source, hydropower was not regarded as such during our time frame of interest, especially in Malaysia, Thailand, and Vietnam, where it was blamed for multiple environmental and ecological issues downstream of major dams. As reporter Trung Chanh in Vietnam explained, hydropower is not considered in the same category as solar and wind because "although hydro dams don't cause pollution similarly to the way coal plants do, they destroy biodiversity, alter fish populations and sediment levels in water sources."

To conclude, news outlets across the five Southeast Asian countries examined portrayed renewable energy, especially solar, as a lucrative investment for energy producers as well as consumers looking to benefit from a new, fast-developing technology. However, lacking were in-depth analyses of the role renewables can play in the future energy mix as more than an additive to fossil fuels. Roughly a fifth of the sampled articles about renewable energy in Vietnam started to broach bigger-picture issues such as redesigning the energy grid and energy market to accommodate renewable growth, though this type of framing was limited to solar energy. Hydropower was often not regarded as a renewable energy, while wind, geothermal, and biomass generally did not attract much coverage.

Trends in Journalistic Practices

Journalists saw energy as an economic story; government and business sources overrepresented

No matter the energy type discussed, however, across all five Southeast Asian countries examined, energy was primarily seen by journalists as an economic story. This was manifested in the section energy articles were sorted into as well as the types of sources prominently quoted.

At least half of the energy stories in all countries studied were sorted into the business, money, economy, or finance sections of their media outlets and accordingly emphasized the economic implications of the energy issues discussed, sometimes at the expense of other aspects like environmental or social impact. Even when an energy article was not published in these sections, across all countries, the primary impact discussed was more likely than not the economic one.

Our interview analysis also confirmed this finding, as in all countries sampled, most journalists who frequently cover energy said they started doing so as part of the economy desk. In three of the countries—the Philippines, Vietnam, and Thailand—journalists explained that this was because in their country, the government agency in charge of energy planning also dealt with other economic planning issues, so reporters had to cover all topics within the ministry's purview.

Whether as a result of this assignment or not, government and business sources were overrepresented in energy stories across all the tiger cub countries. For all five countries analyzed, at least 70 percent of all energy articles quoted exclusively from representatives of businesses, the government, and state-owned organizations.

This trend was even more noticeable in procoal articles, which specifically relied much more on government and industry representatives with stakes in coal development. Of all procoal stories in Indonesia, 81 percent quoted exclusively from government or

business representatives (95 of 112 articles); that figure was 88 percent for Malaysia (46 of 52 articles), 86 percent for the Philippines (18 of 21 articles), 86 percent for Thailand (six of seven articles), and 96 percent for Vietnam (23 of 24 articles).

Two factors could account for Indonesian media's slightly lower reliance on government and business sources in coal reporting compared to the other countries: (1) there were more procoal articles in Indonesia than anywhere else (117), and a large sample size of articles may have led to more diversity in sources quoted, and (2) academic and NGO sources were more likely to express procoal opinions in Indonesia than in other countries. Take, for example, this article on coal mining from Indonesia's Tribunnews, which quoted three sources: the general director of mineral and coal mining, the Ministry of Energy and Mineral Resources, and the academic Center of Reform on Economics (CORE Indonesia). While the CORE representative argued that a coal expansion would render Indonesia dependent on the dynamic of global coal prices, he also agreed with the government sources that coal is probably in Indonesia to stay, at least for quite some time.

While business and government sources were over-represented, local community voices were generally underrepresented in energy reporting for coal and renewable energy. In Thailand, Malaysia, Vietnam, and Indonesia, 10 percent or fewer of the energy articles sampled quoted a community leader or community member. The Philippines was the outlier in this regard, with 19.5 percent of the sampled articles from there quoting community voices. One reason for this difference is the fact that our Philippines researcher included in her sample the regional outlet MindaNews, which more frequently quoted community voices. MindaNews will be discussed later in the "Outliers" section.

Energy was seen as difficult to understand, but articles were usually simplistic

As discussed in the previous section, energy reporters are often officially assigned to the economic news desks of their organizations. Aside from the obvious implication that other aspects of energy stories risk being ignored, there is another downside to this: journalists get spread thinly across different economic topics and do not have enough time to understand and write about energy issues well. Across all countries analyzed, at least half the journalists interviewed expressed a lack of confidence about their knowledge on energy, describing it as a difficult topic to broach.

While journalists recognize the complexity of the energy topic, they do not have adequate time and capacity to channel this complexity in their reporting. Across all the countries analyzed, one-sided hard news and public relations stories

made up at least 60 percent of the energy articles sampled. Although the majority of articles provided some explanation for complex energy terms, they were either inadequate or relied on only one source. Less than 5 percent of articles across all the countries analyzed cited and adequately interpreted data as a basis for their reporting.

The journalists interviewed for our research proposed different solutions to improve energy-article quality in their countries. Indonesia's Afut Syafril Nursyirwan, a reporter at ANTARA, suggested targeted training for younger reporters. Nursyirwan said her newsroom has been experiencing difficulty trying to assign new reporters to energy topics, as not many are up for the task. Meanwhile, a journalist at Malaysian SME Media Group hoped newsrooms will move away from categorizing energy as an economic story to allow for a more nuanced approach. "With energy stories, [there should be more] talks about [energy policies'] implications for our earth," he said. "Energy stories would be deemed as normal news so that it will also allow for much broader reporting." Krungthep Turakij's Piyaporn, meanwhile, said she believed independent media outlets operated by citizen journalists could offer more-nuanced alternatives to energy reporting and hoped such outlets would receive more support in the future.

Notable Outliers

An analysis of independent or more niche media outlets in our sample supported Piyaporn's viewpoint. As of now, the only media outlets in each country that do not overwhelmingly report on energy from an economic perspective are independent media outlets or niche publications that cater to a particular readership.

In the Philippines, Mindanews was the only nonprofit media outlet analyzed by our main researcher; it is also regional in scope, covering only the provincial Mindanao region, and prides itself on its "independence." Mindanews led the way in broadcasting communities' daily suffering around major coal plants; it was also the only outlet in the Philippines that featured an environment section on its home page. Additionally, it stood out as doing a good job of providing necessary context for readers to draw their own conclusions about various energy projects and policies.

Indonesia's Kumparan stood out as the only publication in the country not owned by a major media conglomerate. The media outlet published 35 articles on renewable energy's merits, the most of any outlet in Indonesia. Kumparan has been experimenting with publishing user-generated content from citizen journalists and local stringers; half of the energy articles from Kumparan were written by external contributors and were overwhelmingly hopeful about the future of renewable energy.

Meanwhile, Free Malaysia Today, an independent online outlet, was the only publication in Malaysia that had more energy articles with an environment focus (15) than a business focus (10). It was also particularly interested in using the community frame to report on controversial energy projects, especially when it came to hydropower dams in the Sabah region.

In Vietnam, Nguoi Do Thi weekly, which caters to a niche urban readership, stood out for publishing 13 of its 14 energy stories in the environment section despite not being an explicitly proenvironment outlet. It is the only publication in Vietnam that extensively featured the voices of communiities around coal power plants in discussing coal policy. Meanwhile in Thailand, Green News Agency does not have an environment section and covers energy stories when there are social and environmental aspects to it. None of its energy stories relied exclusively on business or government sources, and they more critically examined the issues at hand.

Aside from these niche publications that broke from the mainstream media trends, a few individuals also stood out for their contributions to shifting the energy narrative in their respective countries. In Vietnam, reporter Le Quynh, with ten years of experience in energy reporting, freelanced nine articles for Nguoi Do Thi magazine, seven of which were either investigative or analytical pieces. Malaysia's Mangai Balasegaram repeatedly made the connection between coal and climate change in her op-eds for The Star, being a member of the Clean Energy Wire network. Meanwhile, in Thailand's television coverage of the coal moratorium debate, PPTVHD36's Pitiporn Praomatooros produced many in-depth scoops that highlighted coal's potential harm to communities in southern Thailand and negotiated with the network's marketing team to not support any message saying coal is clean. There are more notable examples that can be found in our national reports; aside from a concern for climate change, these journalists received support in obtaining field-trip or learning opportunities that vastly helped them in their reporting.

Conclusion

In summary, our analysis of coal and renewable energy media coverage across Southeast Asia's five tiger cub countries—Indonesia, Malaysia, the Philippines, Thailand, and Vietnam—showed that whether or not coal is framed as a country's energy future correlated with its current contribution to the energy mix and national gross domestic product. In coal-exporting Indonesia, any environmental concern was usually rationalized, while in Thailand, which is less reliant on coal, the media predominantly framed the energy source as dirty and harmful. In the Philippines, however, the media provided a rare example of coal being framed more negatively despite its high contribution to the energy mix; articles in the country's leading outlets cited coal's environmental damages, climate change, and coal's inability to ensure a stable energy supply as reasons for a gradual phaseout.

On the other hand, renewable energy was more often framed as a lucrative investment rather than a replacement for coal as baseload energy. Although there were more positive stories about renewables than coal across all five countries' media, those narratives rarely made connections between renewables lowering emissions to curb climate change or provided specific policy analyses. Vietnam stood out as somewhat of an exception, as the country's lead in solar development provided more grounds for in-depth, critical policy discourse, which was seen in one-fifth of stories published on this topic.

In all the countries studied, energy was predominantly seen as an economic story. This was the product of a reporting process whereby journalists, some of them assigned to the economy desk, quoted from a small circle of government and business representatives in their articles at the expense of community voices. These stories were published in the economic/business/finance sections of the news outlets, perpetuating the view that energy can only be told through these lenses. There was evidence, however, of shifting trends in reporting practices among independent, niche outlets, which experiment with more-innovative, analytical articles that feature a wider range of perspectives.

Annex

Country	List	Main Research	Case Study 1	Case Study 2
C	News	Kompas	Kompas	
	outlets analyzed	Tribunnews	Тетро	
	analyzeu	Liputan6	Bisnis	
		Okezone		
		Sindonews		
		detikNews		
		Kumparan		
	Journalists	Rochimawati, editor, Viva	Retno Sulistyowati, reporter,	
	interviewed	Deasy Indriwati, reporter, Inidata	Tempo Ichwan Susanto, journalist, Kompas anonymous reporter, Kontan Aris Prasetyo, reporter, Kompas anonymous reporter	
		Musthofa Aldo, reporter, Liputan6		
		anonymous editor, detikNews		
		anonymous reporter, detikNews		
		Pebrianto, editor, Liputan6		
		Anisatul, reporter, CNBC		
		Athika Rahma, reporter, Liputan6		
		Virna, editor, ANTARA		
		Afut Syafril Nursyirwan, reporter, ANTARA		
		Rully Ramli, reporter, Kompas		
		Ema, reporter, Kumparan		
		Lusia Arumingtyas, reporter, Mongabay Indonesia		
		Meidella Syahni, reporter, Mongabay Indonesia		
		Dani Jumadil Akhir, editor, Okezone		
		Intan, reporter, Republika		
		Norman, reporter, Jakarta Post		
		Erlangga Djumena, editor, <i>Kompas</i>		

Malaysia	News	The Star	
	outlets analyzed	New Straits Times (NST)	
		Malaysiakini	
		Free Malaysia Today (FMT)	
		The Edge	
		The Malaysian Reserve (TMR)	
	Journalists interviewed	Mangai Balasegaram, columnist, The Star	
		anonymous reporter, <i>The Star</i>	
		Shannon Teoh, editor, <i>The Straits Times</i>	
		Areeshya, reporter, The Edge	
		four anonymous reporters, TMR	
		three anonymous reporters, <i>The</i> Edge	
		anonymous reporters, FMT	
		anonymous reporters, Malaysiakini	
		anonymous reporters, Malaysian SME Media Group	
Philippines	News	INQUIRER.net	INQUIRER.net
	outlets	PhilStar	GMA News Online (GNO)
	analyzed	SunStar	ABS-CBN News Online
		Mindanews	Rappler
		GMA News Online (GNO)	Philippine News Agency (PNA)
	Journalists interviewed	Gabriel Pabico Lalu, reporter, INQUIRER.net	Jon Viktor Cabuenas, reporter, GNO
		anonymous editor, INQUIRER.net	Kristine Sabillo, reporter, ABS-CBN
		James Relativo, content producer, PhilStar	anonymous editor, INQUIRER.net Mary Judaline Partlow, reporter, PNA Joann Villanueva, reporter, PNA Rom Dulfo, editor, PNA
		Patricia Lourdes Viray, editor, PhilStar	
		Juaniyo Arcellana, semiretired editor, PhilStar	
		Ted Cordero, reporter, GNO	
		Luis Gorgonio, editor, GNO	
		Vic Sollorano, former editor, GNO	
		Carlo Lorenciana, reporter, PNA	
		Jun Aguirre, stringer, SunStar	
		Cebu	
		Ronald Reyes, correspondent, SunStar Tacloban	
		Nicko Tubo, editor, SunStar	
		Malu Cadelina Manar, stringer, Mindanews	
		Froilan Gallardo, reporter, Mindanews	

Vietnam	News	Tuoi Tre Online	Tuoi Tre Online	_
vietnam	outlets	Dan Tri	Dan Tri	
	analyzed			
		VnExpress	Nguoi Do Thi	
		Zing News	VnExpress	
		Saigon Times	Thanh Nien	
		Nguoi Do Thi	Dau Tu	
			Nguoi Lao dong	
			VietnamNet	
			Tien Phong	
			Nhan Dan	
	Journalists interviewed	Trung Chanh, reporter, Saigon Times	Que Hai, reporter, <i>Thanh Nien</i>	
	litterviewed	Lan Nhi, reporter, Saigon Times	Le Quynh, freelance journalist	
		anonymous reporter, <i>Tuoi Tre</i>	Lam Vân, editor, CESTI	
			Duong Van Tho, editor, thiennhien. net Vo Manh Hung, reporter, Vietnamplus	
		anonymous, reporter, Dan Tri		
		Le Quynh, freelance journalist		
		Ngoc An, reporter, Tuoi Tre		
		Uyen Nguyen, reporter, Zing News		
		Thong Nguyen, reporter, VnExpress		
		anonymous, VnExpress reporter		
		Xuan Nguyen, VnExpress reporter		
		Phi Tuan, editor, Tuoi Tre		
		Le Anh Tuan, expert columnist, Can Tho University		
		Anh Thi Nguyen, energy expert, guest contributor		
Thailand	News outlets analyzed	Khaosod	(Coal moratorium)	(Biomass)
		Thai Rath	CH3	Krungthep Turakij
		Krungthep Turakij (Bangkok Business) The Standard	Thairath TV	Prachachat Turakij
			PPTVHD36	Manager Online
			MCOT	ThaiPublica
		Green News Agency	ThaiPBS	Thai Civil Rights and Investigative Journalism (TCIJ)
				The Isaan Record

Journalists interviewed	Piyaporn Wongruang, editor, Krungthep Turakij	Krai Prommi, former reporter, Thairath TV	Waranya Srisawek, former editor, ThaiPropublica
	Nutnicha Donsuwan, reporter, Krungthep Turakij Chadarat Phokathana reporter, Thairath TV	Chadarat Phokathanawat, former reporter, Thairath TV	anonymous reporter, TCIJ Hathairat Phaholtap, journalist, Isaan Record Panisa Aemocha, reporter,
	Orapin Yingyongpathana, editor, Thai Rath online	a, editor, Afnan Abdulloh, reporter, Isaan Re	
	Pratch Rujivanarom, editor, Green News Agency	Pitiporn Praomatooros, journalist, PPTVHD36	Voice TV online anonymous reporter,
	Nicha Wachpanich, reporter, Green News Agency	Pongmeth Longseng, reporter, ThaiPBS	Sarakadee
	Pornpimol Yampracha, editor, Khaosod online	Aruchita Auttamapokin, editor, ThaiPBS	
	Nakarin Wanakijpaibul, editor, the Standard	Chaibancha Roopkom, editor, MCOT	
	Anuchit Kaiwijit, reporter, the Standard	Montri Udomphong, reporter, CH3 Thailand	
	Afnan Abdulloh, reporter, PPTV		
	Panisa Aemocha, reporter, Voice TV online		
	Tatikarn Dechapong, editor, Voice TV online		
	Pianporn Deetes, International Rivers		
	Tara Buakamsri, Greenpeace		
	Witoon Permpongsacharoen, Mekong Energy Ecology Network		

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The Stanley Center for Peace and Security partners with people, organizations, and the greater global community to drive policy progress in three issue areas—mitigating climate change, avoiding the use of nuclear weapons, and preventing mass violence and atrocities. The center was created in 1956 and maintains its independence while developing forums for diverse perspectives and ideas. To learn more about our recent publications and upcoming events, please visit stanleycenter.org.



About Climate Tracker

Climate Tracker is the largest youth-based climate journalism project in the world. We train and competitively empower young people around the world to influence their national debates about climate change, and publish their ideas in national media. We send the most impressive young people to international conferences where they can have a direct influence on decision makers and get a hands-on experience in shaping national and international policy. ClimateTracker.org.

