

Southeast Asia ramps up gas extraction plans but uncertainty remains

Key highlights

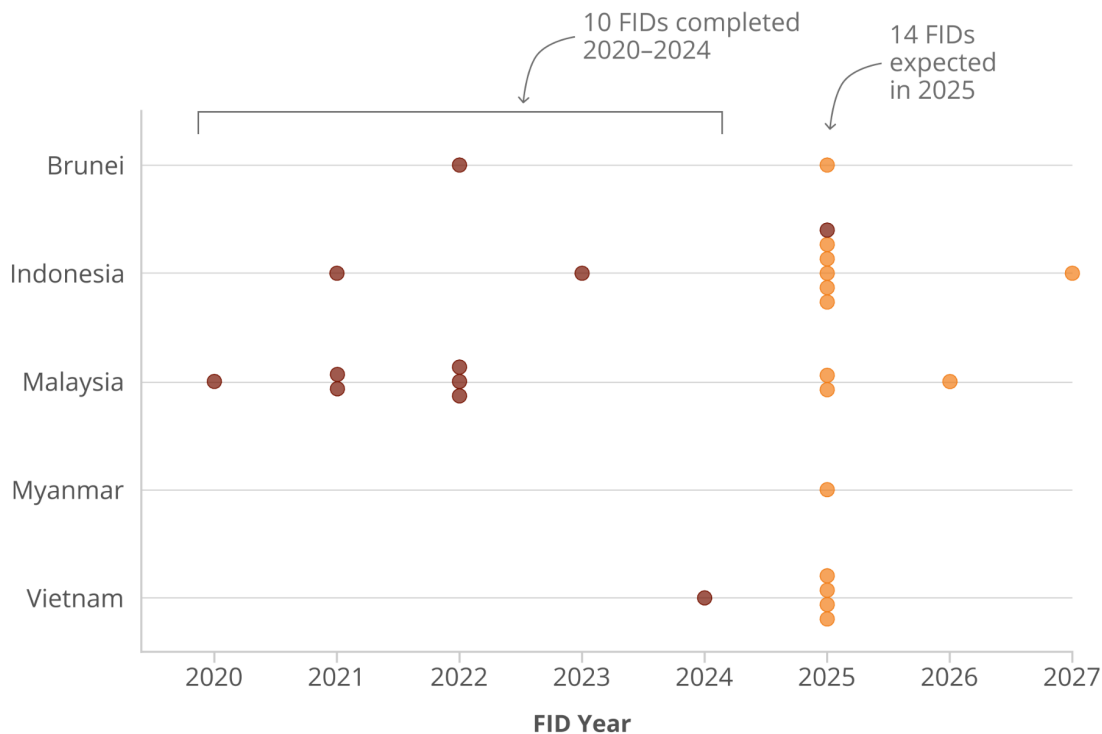
- Southeast Asia is considering the highest number of final investment decisions (FIDs) on oil and gas extraction projects this decade, with over 20 billion cubic metres annually (bcm/y) of new production capacity potentially added — an 18% increase over current output that threatens to lock the region into decades of fossil fuel dependency.
- These FIDs have faced a history of delays, so the likelihood of these projects moving forward remains unclear.

Data in Global Energy Monitor's Global Oil and Gas Extraction Tracker ([GOGET](#)) show that 2025 could mark a pivotal year for upstream gas development in Southeast Asia, with one project already approved and thirteen other gas projects potentially reaching FID (Figure 1). These include five projects in Indonesia, two in Malaysia, four in Vietnam, one in Brunei, and one in Myanmar (Appendix 1). If all projects are approved, they would not only represent the highest annual count of upstream approvals in over a decade but also unlock more than an estimated 20 bcm/y of additional gas production capacity, an 18 percent increase over current output. This would signal a strategic regional pivot towards accelerating gas development.

More final investment decisions (FIDs) are expected in 2025 than were completed in the first half of the decade

Gas projects in SE Asia with FIDs (completed or anticipated) in this decade.

FID Status ● Completed ● Anticipated



Source: Global Oil and Gas Extraction Tracker, February 2025



Figure 1: Gas projects in SE Asia with FIDs (completed or anticipated) in this decade¹

¹ Updates made to reflect new information released since the Feb 2025 data release

Several mega gas projects in SE Asia with an expected 2025 final investment decision (FID) have faced years of delays

Years of delay since initial anticipated FID. Ordered and scaled by anticipated peak production in billion cubic meters per year (bcm/yr).



Source: Global Oil and Gas Extraction Tracker, February 2025.

Delays in final investment decisions (FID) are calculated based on the initially anticipated year. Three of the thirteen projects with expected 2025 FIDs are not included here because data was not available on their initially anticipated year.



Figure 2: Years of delay since the initial expected FID for SE Asia gas extraction projects expecting FIDs in 2025. Ordered and scaled by anticipated peak production in billion cubic meters per year (bcm/year)²

These new fields come despite clear [evidence](#) that new oil and gas fields are incompatible with limiting global warming to 1.5°C. Additionally, the long-term economic and environmental risks of such a fossil-heavy path are substantial, especially given the region's parallel commitments to climate goals, energy transition, and ecosystem conservation. These projects are located in ecologically sensitive areas,

² Updates made to reflect new information released since the Feb 2025 data release

and gas development could have significant negative impacts on the biodiversity found there.

Upstream gas expansion is being positioned by national governments as both a stopgap to address short-term energy needs and a catalyst to national development. Since companies and countries are unlikely to abandon gas developments before reserves are fully depleted in order to ensure a complete return on investment, these developments would have a significant lifespan and would lock in gas as a substantial component of the region's energy mix.

At the same time, many of these projects have faced a history of delays, and significant uncertainty exists around the likely progress of these projects (Figure 2).

Upstream gas development threatens important biodiversity

Southeast Asia's midstream and downstream [gas infrastructure](#) in development — projects that have been announced or are in the pre-construction and construction phases — remained largely stable over the previous year, with over 100 gigawatts (GW) of gas-fired power capacity, around 46 million tonnes per annum (mtpa) of liquefied natural gas (LNG) import capacity, and 15 mtpa of LNG export capacity in development. In contrast, upstream gas extraction is poised for a potential phase of rapid expansion.

Many of these exploration and extraction activities are encroaching on ecologically sensitive regions like the Coral Triangle and the Mekong Delta. The Coral Triangle — an area of ocean around Malaysia, Indonesia, and other countries — is sometimes referred to as the “Amazon of the seas” due to its incredibly high level of marine diversity. Over 120 million people rely on the resources found there for their livelihoods.

However, about [16%](#) of the protected area in the Coral Triangle overlaps with gas blocks, most of which are still in the exploration phase. For instance, block SB-403, where gas exploration is [imminent](#), is located entirely within the Tun Mustapha Marine Park in Malaysia. If all current proposals go into production, more than [1.6 million square kilometers](#) of the Coral Triangle would be directly impacted by fossil fuel development.

Located immediately to the north of the Coral Triangle, the Mekong Delta of Vietnam is one of the largest and most fertile deltas in the world, supporting a population of [18 million](#) people. The health of the delta and the people who depend on it is currently threatened by gas discoveries in [lease blocks](#) that overlap the delta. As in the Coral Triangle, gas development here significantly threatens the health of the natural life and human communities who live there.

Malaysia

As one of the top five global exporters of LNG, Malaysia is pursuing ambitious upstream gas development plans. In its [Activity Outlook 2025–2027](#), state-owned energy company Petronas announced its intention to increase national oil and gas production from 1.7 million barrels of oil equivalent per day (boe/d) in 2024 to 2 million boe/d by 2027. This target will be met through a mix of greenfield and brownfield projects.

When the Lang Lebah field was discovered in 2019, Petronas [wrote](#) of how it was “highlighting just how prolific Malaysia’s basins are” as a harbinger of “potentially more discoveries to come.” As of September 2023, the project was “[on track](#)” to reach FID before the end of the year. However, by February 2025, the FID was “[now delayed until at least 2026](#)” due to [costs and corporate politics](#). The field is anticipated to [produce](#) 0.03 bcm of gas per day, or about half of Petronas’ intended marginal increase.

Other notable developments include the [Kasawari gas project](#) off the coast of Sarawak and the redevelopment of mature fields such as Gumusut-Kakap and Bekok. Petronas [produced first gas](#) from the Kasawari field thirteen years after its discovery in 2024, a year later [than anticipated](#). The field is expected to extract 84 bcm of gas, according to GOGET, and will supply gas to Petronas' LNG Complex in Bintulu³ and to [domestic consumers](#).

To further stimulate investment and exploration, Petronas has [launched](#) the Malaysia Bid Round 2025, offering new blocks in the Malay and Penyu Basins offshore Peninsular Malaysia and the Sandakan Basin off Sabah. Recently, Petronas has also [signed](#) a memorandum of understanding with Italy's Eni to jointly manage upstream assets in Malaysia and Indonesia. This partnership involves combined reserves of approximately 3 billion barrels of oil equivalent, with exploration potential estimated at an additional 10 billion barrels.

Despite the continued expansion of upstream activities, Malaysia's [National Energy Policy 2022–2040](#) signals a strategic shift, targeting a reduction in gas' share of the national energy mix to 39% by 2040. The country has also committed to reaching net-zero greenhouse gas emissions as early as 2050. However, continued upstream gas exploration contradicts this trajectory. Petronas' investment in the Kasawari carbon capture and storage (CCS) project is insufficient to neutralize the climate impact of ongoing gas development. The effectiveness and long-term viability of CCS remain unproven, and a recent [study](#) suggests that the CCS proposals may even result in increased emissions by extending the extraction and use of fossil fuels.

Indonesia

Indonesia is aiming to expand gas extraction, pushing for new upstream gas development to meet both domestic and international energy demands. Eni's \$12

³ Petronas Bintulu LNG Complex included [Dua Malaysia LNG Terminal](#), [Satu Malaysia Terminal](#), [Tiga Malaysia LNG Terminal](#), and [Malaysia LNG Terminal Train 9](#).

billion “[giant](#)” Geng North gas [discovery](#) is one of the biggest and fastest-moving developments. Utilizing existing infrastructure, such as the LNG plant in East Kalimantan, the project is set to begin [production](#) in late 2027. Eni describes its Kutei Basin production hub as a “[game changer](#).” According to a [spokesperson](#) from SKK Migas, Indonesia’s oil and gas regulator, the Geng North discovery “has a very strategic meaning for Indonesia’s oil and gas in the future,” helping to revitalize investor confidence and bringing Indonesia “back to being an exploration destination.”

The Abadi gas field and associated LNG project are additional examples of delayed ventures. Discovered in 2000, INPEX’s project “has [long struggled to gain traction](#).” A development plan was approved by the Indonesian government in 2019, but then “[to make the project cleaner](#)” INPEX [submitted a revised plan](#) in 2023. At that time, the company indicated it was targeting FID in the “latter half of the 2020s” to begin extracting in the 2030s. Listed as a “[National Strategic Project](#),” Abadi would reportedly supply gas to the [Abadi LNG project](#) at a rate of 13 bcm/y of LNG, 1.5 bcm/y of pipeline gas.

Another significant [investment](#) in this sector is BP’s \$7 billion Tangguh Ubadari, CCUS, and Compression (UCC) project, approved in October 2024. This project is expected to unlock 3 trillion cubic feet of additional gas, incorporating CCUS to enhance gas recovery and reduce emissions.

Indonesia’s ambitious expansion is closely tied to its [Upstream Oil & Gas \(IOG\) 4.0 Strategic Plan](#), led by SKK Migas, which aims to boost gas production to 12 billion standard cubic feet per day by 2030. To support this, the government has announced plans to [offer](#) 54 new oil and gas blocks between 2024 and 2028, making it easier for investors to explore and develop new projects. According to [Minister](#) of Energy and Mineral Resources Arifin Tasrif, Indonesia currently has estimated recoverable gas reserves of about 54 trillion cubic feet, with an aim to double that amount following

exploration activities. In the past twelve months, Indonesia awarded oil and gas licenses with potential emissions of [54.4 MtCO₂](#).

However, this strong focus on gas development raises questions about its alignment with Indonesia's long-term energy transition goals. Under the [Just Energy Transition Partnership \(JETP\)](#) scenario, gas consumption is projected to peak at 90.6 terawatt hours (TWh) (6.11%) in 2030, before gradually declining to 38.3 TWh (2.58%) by 2050. Heavy investments in new gas infrastructure, particularly if paired with efforts to increase demand, could significantly delay the shift toward renewable energy.

Vietnam

Vietnam is making a strategic effort to accelerate upstream gas development in order to meet rising energy demand, enhance security, and reduce dependence on coal. Central to this effort are two major offshore gas extraction projects: Blue Whale (Ca Voi Xanh) project and Block B project.

The [Ca Voi Xanh gas field](#) located in Block 118, about 88 km off Vietnam's central coast, was discovered by ExxonMobil in 2011. It is considered Vietnam's largest gas field, with reserves estimated at 150 bcm. The planned development includes offshore extraction facilities, an 88-km pipeline to the Quang Nam province, and a 3,000 megawatt (MW) power generation capacity. Despite being included in both Vietnam's Power Development Plan (PDP) VII and VIII, the project has made limited progress. Minister of Industry and Trade, Nguyen Hong Dien, acknowledged the [challenges](#), citing ExxonMobil's corporate restructuring and strategic pivot toward new energy as key factors slowing development. While cancelling the project is not an option under consideration, Dien stated that further progress will be very difficult under the current circumstances. As an interim measure, the gas-fired power plants could initially operate using imported LNG, with a long-term plan to transition to domestic supply from the Blue Whale field once it is brought into production.

Located in the southwest offshore region, the [Block B gas project](#) is another ambitious upstream undertaking, with gas reserves estimated at 107 bcm. The project includes extensive subsea pipelines and supporting infrastructure, with an [investment](#) of over US\$10 billion.

These upstream gas projects are considered part of Vietnam's energy transition and aligned with its [Power Development Plan VIII \(PDP8\)](#), which is attempting to reduce emissions from coal while renewable energy capacity is expanded. However, heavy investment in gas can lead to gas lock-in and may divert needed financing away from renewables.

Brunei Darussalam

Brunei Darussalam has recently intensified its upstream gas development efforts. In February 2025, the country [launched](#) its first licensing round in over a decade, offering two offshore blocks for competitive bidding, with awards expected in 2026. This initiative reflects Brunei's commitment to attracting foreign investment and expanding gas exploration. The nation is also progressing with key deepwater gas projects, including the Merpati-Meragi and Kelidang Cluster fields. The [Merpati-Meragi field](#), discovered in 1992 and located offshore, is slated to begin commercial production in 2025 with a projected development cost of \$1.8 billion. Similarly, the [Kelidang Cluster](#) — comprising the Kelidang North East and Keratau gas fields and discovered in 2013 — is expected to reach FID in 2025 and commence production in 2025, with estimated development costs of \$5.5 billion.

Brunei's continued upstream gas exploration and development efforts are increasingly inconsistent with its long-term policy goals. [Wawasan Brunei 2035](#) sets out a national vision for a diversified, knowledge-based economy that maintains high living standards while reducing reliance on hydrocarbons. Diversification away from the oil and gas

industry is recognized as essential to building resilience against global market volatility and ensuring future sustainability.

Brunei's [Economic Blueprint](#) further acknowledges that heavy dependence on oil and gas has contributed to low economic growth and high unemployment, identifying five priority sectors — alongside other emerging industries — that will drive the development of the country's non-oil and gas sector and support national economic diversification efforts. The [Brunei National Climate Change Policy \(BNCCP\)](#), launched in 2020, reinforces this strategic direction by committing Brunei to achieving net-zero greenhouse gas emissions by 2050. The BNCCP sets ambitious targets, including increasing the share of renewable energy to 30% of total power generation by 2035, highlighting a clear pivot toward a low-carbon economy. In this context, the pursuit of continued upstream gas development fundamentally undermines Brunei's commitments to economic diversification and sustainable development.

Conclusion

New and expanded gas production in Southeast Asia threatens the region's biodiversity and the livelihoods of the communities who depend on it. It risks significant economic, ecological, and cultural damage and the further entrenchment of gas in these countries' energy mixes. The investment and further establishment of the gas industry would likely present a barrier to the development of renewables.

Several of these high-profile projects have already faced years of delays. As the energy transition gains momentum, the viability of these stalled developments should be re-assessed. Rather than pursuing high-risk fossil fuel ventures, Southeast Asian governments have a critical opportunity to redirect investment toward clean, scalable energy systems that support economic resilience and align with global climate commitments. Persistent delays and uncertainty surrounding gas extraction should catalyze these countries to focus on the development of renewables instead.

About the Asia Gas Tracker

The Asia Gas Tracker is an online database that identifies, maps, describes, and categorizes gas infrastructure across Asia, including gas pipelines, liquefied natural gas (LNG) terminals, gas-fired power plants, and gas fields. Developed by Global Energy Monitor, the tracker uses footnoted wiki pages to document each project and is updated annually.

About the Global Oil and Gas Extraction Tracker (GOGET)

GOGET is an information resource on gas oil extraction projects. The internal GOGET database is updated continuously throughout the year, and the annual release is published and distributed with a data download, summary tables, and field-level wiki pages. The data are released under a creative commons license. Commercial datasets exist but are prohibitively expensive for many would-be users. Global Energy Monitor developed GOGET so that high-quality data on these projects is available to all.

About Global Energy Monitor

Global Energy Monitor (GEM) develops and shares information in support of the worldwide movement for clean energy. By studying the evolving international energy landscape and creating databases, reports, and interactive tools that enhance understanding, GEM seeks to build an open guide to the world's energy system.

GEM data serves as a vital international reference point that is being used by agencies including: Intergovernmental Panel on Climate Change (IPCC), International Energy Agency (IEA), United Nations Environment Programme (UNEP), U.S. Treasury Department, and the World Bank. Furthermore, industry data providers such as Bloomberg Terminals and the Economist, and academic institutions like University of

Oxford and Harvard University draw on this data. Follow us at www.globalenergymonitor.org, Twitter/X [@GlobalEnergyMon](https://twitter.com/GlobalEnergyMon), and Bluesky [@globalenergymon.bsky.social](https://bsky.app/profile/globalenergymon.bsky.social)

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