2. From Resource-rich to Future-ready: Sarawak's Investment and Green Industrial Growth[64]

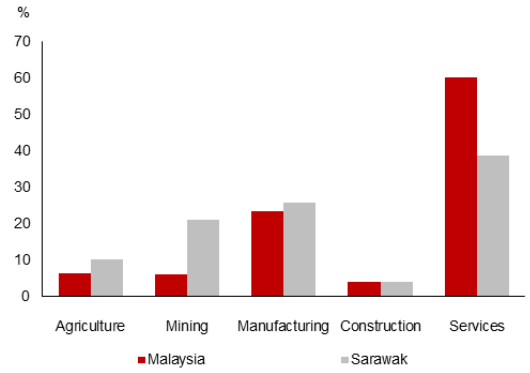
Sarawak is undertaking a broad-based investment drive to transition from a hydrocarbon-dependent economy to a diversified, green, and high-value manufacturing hub, supporting Malaysia's broader industrial upgrading. Strategic initiatives focus on hydrogen; carbon capture, utilization, and storage; petrochemicals; semiconductors; data centers; and transport infrastructure. Integrated industrial clusters such as Samalaju in Bintulu, alongside expansions of seaports, airports and road networks, enhance connectivity and export capacity. Abundant low-carbon hydropower and domestic gas supply provide a competitive energy base for energy-intensive industries. Free tertiary education aims to build the skilled workforce required for a high-value economy. Collectively, these measures aim to attract high-quality investment, reduce reliance on hydrocarbons, and position Sarawak for sustainable, future-ready growth. These efforts carry national significance—Sarawak's energy endowments, industrial clusters and regional connectivity position the state as a key enabler of Malaysia's net-zero transition, high-income ambitions, and ASEAN energy integration agenda.

1. **Sarawak is one of Malaysia's most resource-endowed states, accounting for the bulk of the country's liquefied natural gas (LNG) exports and a significant share of hydrocarbon production.** Mining, particularly in oil and gas, makes up a significant share of Sarawak's GDP (Figure A2.1).[65] Hydrocarbon-related revenues, including state sales tax on petroleum products, constitute a major source of fiscal income.[66] In recent years, state budgets have exceeded MYR15 billion annually, with development expenditure accounting for 65–70 percent of total spending—an unusually high ratio by subnational standards. At the same time, reliance on commodity-linked revenues exposes the state's fiscal position to oil and gas price volatility and long-term global decarbonization trends, while the capital-intensive hydrocarbon sector has limited direct employment creation and relatively weak spillovers to other industries, underscoring the need for structural diversification.

2. **Sarawak is undertaking a broad-based investment push to transition from commodity dependence toward diversified, green, and higher value-added growth.** Strategic frameworks—including the Post-COVID Development Strategy (PCDS) 2030, Sustainability Blueprint, Hydrogen Economy Roadmap, Gas Roadmap, Digital Economy Blueprint, and Semiconductor Roadmap—collectively prioritize infrastructure modernization, energy transition, and high-value manufacturing to achieve high-income status by 2030. Through alternative financing mechanisms supported by petroleum sales tax revenues and dividends from state-linked corporations, the government has committed at least MYR21.8 billion to 1,586 infrastructure projects, of which more than 70 percent have been completed.[67] These projects span roads, water supply, rural electrification, power generation, and digital connectivity. Construction activity has consequently outpaced the national average in recent years, reflecting strong project implementation and elevated development spending (Figure A2.2).

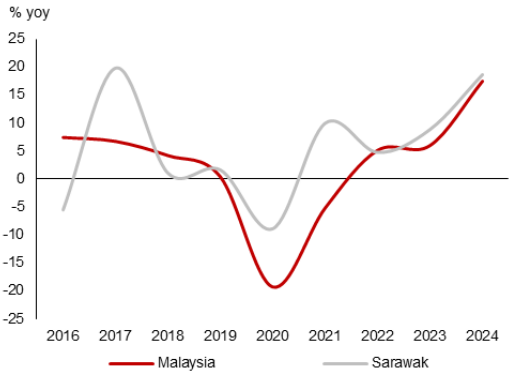
[64] Prepared by Wee Chian Koh, Senior Economist.
[65] Sarawak contributes about 90 percent of Malaysia's LNG exports and holds roughly 60 percent of Malaysia's total gas reserves. The major LNG complex in Bintulu has an annual capacity of nearly 30 million tonnes, and Malaysia shipped about 28 million tonnes of LNG in 2024, making it the world's fifth-largest exporter.
[66] As of late 2025, Sarawak had collected MYR28.5 billion from the 5 percent sales tax on petroleum products since it was implemented in 2019, contributing about one-third to total state revenue.
[67] Sarawak's Alternative Financing (AF) model is a state-level infrastructure financing mechanism to fast-track critical infrastructure without being constrained by annual cash budgets. The state appoints government-linked companies (GLCs) or special-purpose vehicles (SPVs) to undertake and pre-finance infrastructure projects. These entities raise financing (typically via bank loans or capital markets), implement the projects, and are repaid by the state government over time. This approach became more prominent after Sarawak's revenue position strengthened following the introduction of the 5 percent state sales tax on petroleum in 2019, which expanded fiscal capacity.

Figure A2.1. Share of GDP by Economic Sector



Source: Department of Statistics Malaysia (DOSM); AMRO staff calculations

Figure A2.2. Growth Rate of Construction Sector



Source: DOSM; AMRO staff calculations

3. Sarawak is strategically expanding state control over the oil and gas value chain to support domestic industrial development. The state has pursued greater control over upstream, midstream, and domestic gas activities through its state-owned entity, Petroleum Sarawak Berhad (PETROS). Under Sarawak Gas Roadmap 2030, PETROS aims to increase domestic gas allocation from around 6 percent to nearly 30 percent, catalyzing MYR150–200 billion in broader gas-based investments to strengthen energy security, anchor new manufacturing clusters, and support higher value-added industrial activities, while preserving fiscal revenues from LNG exports. This expanded role has occasionally generated tensions with Petronas—Malaysia's national oil company—over revenue sharing and operational control, though coordination continues on technical standards, pipeline infrastructure, and investment planning.

4. Sarawak is leveraging its renewable energy surplus to develop hydrogen as a new pillar of export diversification. With more than 3,400 MW of installed hydropower capacity, primarily supplied by Sarawak Energy Berhad (SEB), the state has a low-carbon electricity base that supports competitive green hydrogen production.[68] Flagship projects such as H2biscus and H2ornbill, coordinated by PETROS with Japanese and Korean partners, target combined production of 200,000–250,000 tonnes per year of hydrogen or ammonia derivatives by the late 2020s for export to Northeast Asia.[69] Planned investments span electrolyzers, ammonia synthesis plants, storage and export terminals, port upgrades, and domestic refueling infrastructure.

5. The Kuching Urban Transportation System (KUTS) is a MYR6 billion hydrogen-powered autonomous rapid transit (ART) project that serves as both urban mobility infrastructure and a demonstration platform for Sarawak's hydrogen ambitions. Implemented by Sarawak Metro under the Sarawak Economic Development Corporation (SEDC) and overseen by the state government, the system combines hydrogen fuel cell-powered vehicles with dedicated refueling infrastructure and a centralized operations and traffic management center. The network integrates park-and-ride facilities, feeder bus services, and multimodal links. Construction is phased between 2025 and 2028. Beyond its transport function, KUTS creates early domestic hydrogen demand and signals policy commitment to investors in the hydrogen value chain.

[68] Sarawak currently possesses three hydroelectric dams—Batang Ai, Bakun, and Murum—collectively capable of generating 3,450 MW of electricity. The Baleh dam, scheduled for commissioning in 2028, will add an additional capacity of 1,300 MW.
[69] The H2ornbill project is being carried out with Japanese partner Sumitomo/Eneos, while the H2biscus project involves Korean partners Samsung Engineering, POSCO, and Lotte Chemical.

6. Sarawak is also positioning itself as a regional renewable energy exporter through cross-border electricity interconnections. The state has exported hydropower to West Kalimantan since 2016 and has plans to supply Brunei through existing grid links. More recently, Sarawak has advanced proposals to export up to 1GW of renewable electricity to Singapore under cross-border power trade arrangements, leveraging ASEAN Power Grid initiatives. These arrangements monetize surplus generation capacity, diversify energy revenue beyond hydrocarbons, and reinforce Sarawak's role as a regional low-carbon electricity supplier.

7. Sarawak is advancing carbon capture, utilization, and storage (CCUS) to decarbonize its hydrocarbon base while preserving the long-term competitiveness of its energy exports. The state is assessing depleted reservoirs and saline aquifers offshore, drawing on decades of oil and gas development experience, with geological formations estimated to provide up to 3 trillion cubic meters of potential CO_2 storage capacity. The Kasawari CCS project, led by Petronas in partnership with state entities, targets to capture up to 3.3 million tonnes of CO_2 annually, making it one of the largest offshore CCS initiatives in the region. If deployed at scale, CCUS could extend the productive life of gas reserves, sustain the carbon competitiveness of LNG and petrochemical exports, and position Sarawak as a regional carbon storage provider.

8. Samalaju Industrial Park and the Bintulu petrochemical complex constitute Sarawak's flagship energy-intensive industrial hub, integrating upstream feedstock, power, and port infrastructure to drive high-value manufacturing and export competitiveness. Samalaju Industrial Park has attracted cumulative approved investments exceeding MYR50 billion across ferroalloys, aluminum smelting, and specialty chemicals, supported by reliable hydropower from SEB and domestic gas aggregated by PETROS. The Bintulu petrochemical complex complements the Samalaju cluster with methanol production and planned ammonia and derivative facilities. Proximity to feedstock, abundant low-cost hydropower, and deepwater port facilities enhances export competitiveness. The cluster model also enables economies of scale, technology sharing, and the integration of low-carbon initiatives, including potential CCUS applications.

9. Sarawak is targeting semiconductor and data center investments to integrate into high-tech and AI-driven value chains. The state is positioning itself as a regional hub for semiconductor design and back-end activities, capitalizing on Malaysia's established electrical and electronics ecosystem and reliable hydropower supply. The government has capitalized Sarawak Microelectronics Design Semiconductor with MYR50 million to attract design and fabrication partners. Industrial sites in Samalaju and Kuching High Tech Park are being marketed for hyperscale data center investments, benefiting from low-carbon, stable baseload electricity, competitive tariffs, and proximity to ASEAN markets. However, digital connectivity remains a structural constraint. Compared with established regional hubs, Sarawak currently relies on limited submarine cable landings and international bandwidth routes, which may affect latency and redundancy for large-scale data center operations.

10. Port, air, and road transport development are central to Sarawak's strategy to become a regional logistics and export hub for Borneo and beyond. Bintulu Port, Malaysia's main LNG export terminal, is being upgraded to accommodate increased petrochemical, LNG, and future hydrogen derivative exports. A proposed deep-sea port at Tanjong Embang would support industrial clusters such as Samalaju with new container and bulk cargo facilities. Hinterland connectivity is being strengthened through the Pan-

Borneo Highway and feeder roads, while feasibility studies have advanced for a Trans-Borneo Railway, envisioned to connect major urban and industrial nodes. Air transport infrastructure is likewise being enhanced through expansions at Kuching International Airport and proposals for a new airport in Kota Samarahan to support passenger, cargo, and high-value goods movement.

11. Sarawak has introduced a landmark Free Tertiary Education Scheme (FTES) to expand access to higher education and support human capital development. Scheduled for implementation in 2026, the scheme covers full tuition fees for eligible Sarawakian students, with a focus on science, technology, engineering, and other fields aligned with the state's development priorities.[70] FTES is expected to benefit approximately 10,000 students and is backed by a budget allocation of up to MYR600 million for 2026. To further support students from lower-income households (per capita income below MYR1,500/month), the scheme provides an additional annual living stipend of MYR15,000. The FTES represents a significant commitment to reducing financial barriers for students and strengthening the talent pipeline for Sarawak's economic transformation.

12. The Sarawak Sovereign Wealth Future Fund (SSWFF), seeded with MYR8 billion from the State Consolidated Fund, is designed to transform resource revenues into strategic long-term investments, supporting economic diversification and fiscal sustainability. Annual appropriations of MYR400–600 million are planned to gradually grow the fund's corpus, which is legally required to remain untouched for at least 20 years except under exceptional circumstances. Governed by a Board of Guardians comprising investment and finance professionals, capital deployment commenced in 2025 across equities, fixed income, infrastructure, and strategic stakes aligned with Sarawak's economic transformation goals. By leveraging public capital to attract private and foreign investment, the SSWFF strengthens Sarawak's ability to implement long-term, strategic projects without over-reliance on annual budget allocations or debt.

13. Sarawak's state-led investments are not only transforming the local economy but also advancing Malaysia's national growth and strategic objectives. The state's hydrogen and hydropower projects contribute to Malaysia's low-carbon energy ambitions and support the country's decarbonization commitments under the National Energy Transition Roadmap. Attracting semiconductor and data center investments will enhance digital infrastructure and AI readiness, aligning with the Digital Economy Blueprint and 13th Malaysia Plan (RMK-13). Industrial clusters such as Samalaju in Bintulu complement Malaysia's high-tech E&E hubs by leveraging abundant clean energy to anchor energy-intensive industries, thereby broadening and strengthening the national manufacturing ecosystem. Upgrades in transport and logistics infrastructure strengthen Malaysia's connectivity and facilitate integration into regional and global value chains. By linking state-led initiatives to national strategies, Sarawak amplifies the impact of its investment push, supporting Malaysia's competitiveness and industrial upgrading.

14. Sarawak's ambitious, resource-financed, and state-led investment model carries significant macroeconomic policy implications that require careful calibration to ensure that the state's development strategy delivers durable growth without amplifying fiscal or financial vulnerabilities. Key considerations include:

[70] The scheme covers 64 undergraduate degree programs at four state-owned institutions: Swinburne University of Technology Sarawak, Curtin University Malaysia, University Technology Sarawak, and i-CATS University College.

- ***Revenue volatility and fiscal resilience***. Reliance on hydrocarbon-linked revenues exposes development spending to commodity price swings, highlighting the need for prudent stabilization mechanisms and conservative revenue assumptions. At the same time, medium-term debt anchors and adequate liquidity buffers are essential to preserve fiscal sustainability amid large capital outlays.
- ***Monitoring contingent liabilities***. Large-scale infrastructure, hydrogen, and industrial projects undertaken by state-owned entities, such as PETROS, Sarawak Metro, and SEB, require systematic reporting of debt, guarantees, and quasi-fiscal risks within a consolidated public sector balance sheet.
- ***Operationalization of the sovereign wealth framework***. The SSWFF should adopt transparent deposit and withdrawal rules, clear asset allocation mandates, and strong governance standards to smooth fiscal cycles and safeguard intergenerational equity.
- ***Hydrogen and CCUS development risks***. Commercial viability depends on global demand, technology costs, competition from other hydrogen-exporting regions such as Australia and the Middle East, carbon pricing developments, regulatory clarity on long-term storage liability, and sustained demand for carbon management services. Monitoring these risks is critical to avoid fiscal or operational strain.
- ***External competitiveness and diversification***. Concentration in energy-intensive exports exposes the economy to global decarbonization trends and carbon border adjustment mechanisms, emphasizing the need to diversify toward higher-value manufacturing, technology, and services.
- ***Human capital-productivity alignment***. Achieving sustained returns on capital investment requires workforce upgrading, institutional strengthening, and meaningful private sector participation to prevent diminishing marginal returns.
- ***Federal–state coordination***. Clear regulatory alignment on gas pricing, CCUS liability, carbon markets, and trade policy is essential to reduce uncertainty and catalyze private co-investment. Early and structured federal-state coordination would strengthen the overall investment proposition.

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