Global Infrastructure Outlook 2025-2050

Malaysia key findings

Malaysia highlights

Table of contents

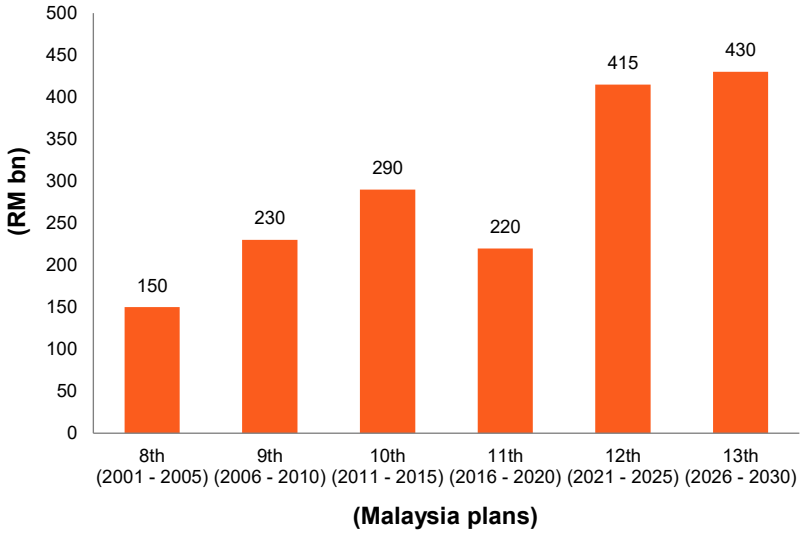
Malaysia's infrastructure growth outlook

Highlights

- Our projection shows that Malaysia's annual infrastructure spend could reach US$31 billion by 2050—a 52% increase against 2024 baseline.
- Cumulative baseline spending between 2025 and 2050 is expected to total US$728 billion.
- If benchmark levels are met, cumulative spending could rise to US$1 trillion.

Malaysia has long recognised infrastructure development as a key economic driver. This focus has been consistently reinforced by successive government administrations, which have prioritised investment in modernising the nation's infrastructure sector. The most recent and significant affirmation of this strategy is the RM430 billion earmarked for development expenditure in the 13th Malaysia Plan, signalling a continued commitment to building a resilient and competitive future.

Federal government development expenditure based on previous national development roadmaps



Source: Government of Malaysia

This history of sustained public investment has cultivated a significant infrastructure market. Based on PwC's Global Infrastructure Outlook 2025-2050, total spend for Malaysia reached US$20 billion in 2024—about 0.9% of Asia-Pacific and 0.5% of global infrastructure spend—placing Malaysia 10th in the region and 28th worldwide. This is significant considering that Asia Pacific accounts for more than half of global infrastructure over the next 25 years.

Realising this potential, however, hinges on navigating key challenges effectively. Like some of its regional peers, Malaysia faces demographic constraints that could temper long-term demand. Nevertheless, the country holds clear strategic levers to fortify its growth outlook. National policies such as the National Energy Transition Roadmap (NETR) and the Malaysia Digital Economy Blueprint, for instance, are designed to catalyse new investment streams and accelerate this growth trajectory.

Focus area

1

Which sectors are expected to drive Malaysia's infrastructure spend?

67%

Of Malaysia's total infrastructure spend to 2050 projected to be contributed by transport, resources, and social sectors.

Projections show that nearly two-thirds of Malaysia's infrastructure spend through 2050 will be directed into transport, resources and social sectors

Looking ahead, transport infrastructure is projected to be the largest sector in terms of total spend, accounting for an estimated 41% of Malaysia' total spend between 2025 and 2050. The resources and social infrastructure sectors are expected to be the next largest areas of focus:

Transport infrastructure

Within this sector, roads and bridges are projected to be the largest segment, with estimated cumulative spending of US$183 billion through 2050 (representing 61% of the sector). Annual spending is expected to rise by 89% to reach US$7.7 billion by 2050. Rail is projected to be the second-largest segment, with cumulative spending forecast at US$94 billion. Growth in this sector will likely be driven by demographic trends, including population growth and sustained urbanisation. The proportion of Malaysians living in urban areas is forecast to increase by nearly 17 percentage points to reach 97% by 2050.

Resources infrastructure

Oil and gas is expected to be the dominant segment, with a projected cumulative spend of US$97 billion between 2025 and 2050 (accounting for 90% of the sector). However, annual spending is expected to witness a more modest rise of 11% to US$3.8 billion by 2050. This mild growth outlook is largely underpinned by the anticipated decline in global and domestic demand resulting from ongoing decarbonisation efforts.

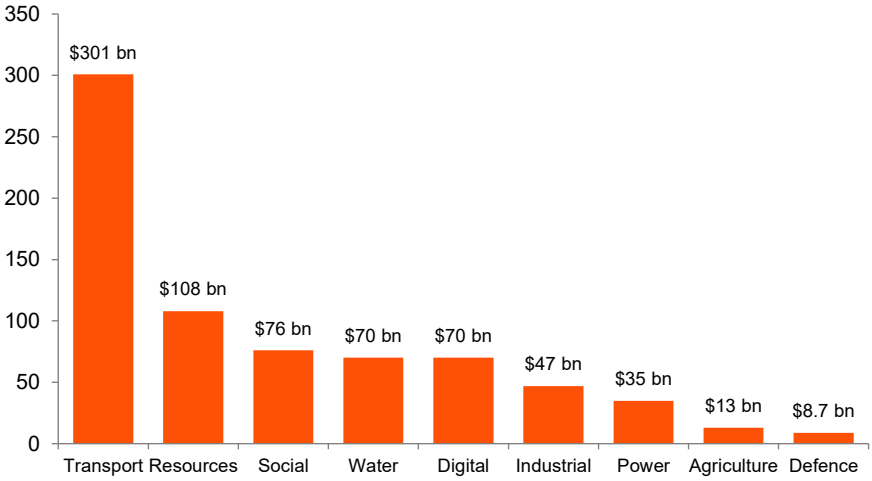
Social infrastructure

In this study, social infrastructure is defined as fixed assets and structures which related to the provision of health or education services, including aged care facilities. Education-related infrastructure is projected to be the leading segment, accounting for an estimated US$41 billion in cumulative spending over the next 25 years (54% of the sector).

Annual social infrastructure spend is projected to witness a significant 93% increase, reaching US$2.0 billion by 2050. This demand will be supported by demographic expansion, as Malaysia's population is projected to grow by 8.7 million people by 2050. This expansion, combined with rising income levels, is expected to drive increased spending and shift public priorities towards fulfilling the nation's evolving social infrastructure needs.

Baseline cumulative infrastructure spend by sector between 2025 to 2050

US$ billion, constant prices



Focus area

2

How will growth momentum shift across sectors through 2050?

A mixed annual growth outlook across sectors, with power sector gains outweighing declines in digital infrastructure spending

Beyond cumulative investment, the percentage change in annual spend highlights the shifting momentum across Malaysia's infrastructure landscape. While most sectors are set for strong growth, the different trajectories of power and digital infrastructure tell a particularly interesting story about long-term investment cycles.

Power infrastructure annual spend is forecast to increase by 112% between 2024 and 2050, the fastest growth rate across all sectors. In absolute terms, this represents a rise from US$807 million to US$1.7 billion annually. This growth will be supported by rising energy demand from the industrial base and an expanding population, coupled with the national push for decarbonisation.

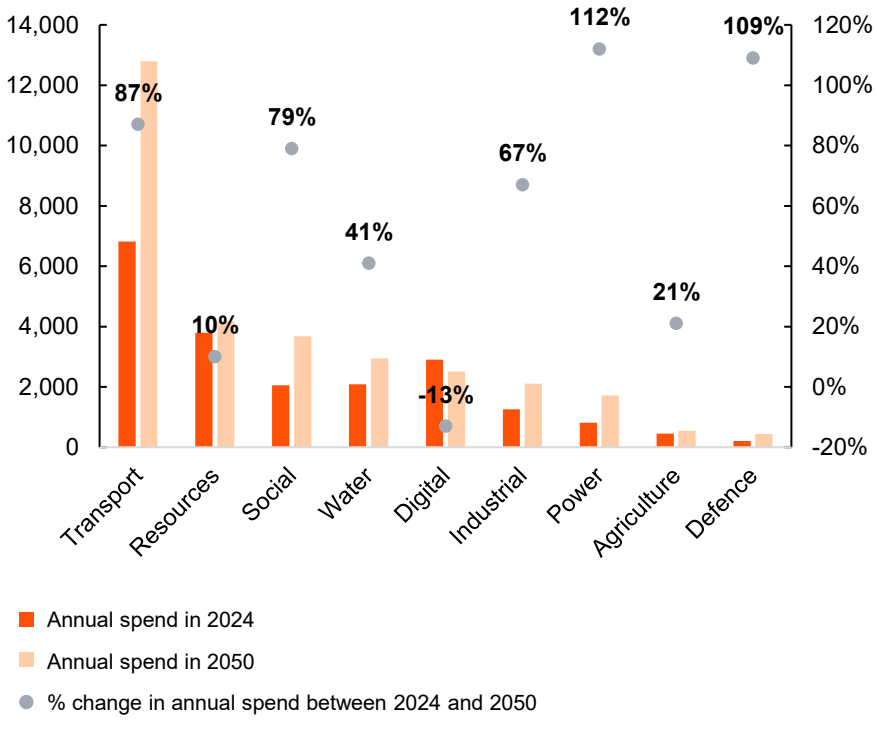
Bucking the trend: Digital infrastructure sector annual spend to decrease by 13%

While most sectors show steady growth, digital infrastructure tells a different story: a short-term investment sprint leading to long-term moderation. An explosive 154% surge in annual spending is forecast between 2024 and 2027, driving investment from US$1.8 billion to a US$4.6 billion peak as Malaysia races to meet AI and cloud demand.

This concentrates the bulk of construction activity in the early years of the investment cycle. Consequently, the investment focus is projected to pivot from building new capacity to optimising existing stock. The projected 13% long-term decline in annual spend, therefore, isn't a sign of weakness, but a signal of a market successfully maturing to its next phase of value creation.

Baseline annual infrastructure spend by sector (2024 to 2050)

US$ billion, constant prices



Focus area

3

What does our benchmarking reveal about Malaysia's infrastructure spending potential?

Peer benchmarks highlight potential for Malaysia to further increase infrastructure spending by up to US$19 billion (from US$31 billion to US$50 billion) annually by 2050

PwC's Global Infrastructure Outlook 2025–50 presents two long-term forecasts for Malaysia's infrastructure investment through 2050: a "baseline" scenario and a "benchmark" scenario.

The baseline scenario reflecting a business-as-usual trajectory, projects annual spending to increase by US$11 billion to reach US$31 billion. This path would result in a cumulative infrastructure spend of US$728 billion by 2050.

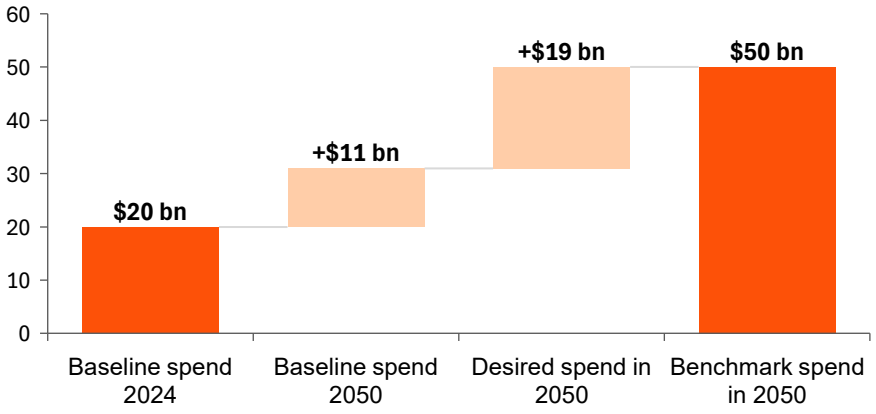
In contrast, an aspirational 'benchmark' scenario maps the investment needed to align Malaysia with top-performing peers.* To achieve this, annual spending would need to increase by a further US$19 billion to reach US$50 billion. This strategic acceleration is expected to propel cumulative infrastructure spend to US$1 trillion and potentially boost Malaysia's GDP by an estimated 2.3% in 2050.

US$1 trillion

Expected reach of cumulative infrastructure spend between 2025 and 2050, if benchmark levels are met.

Baseline annual spend in 2024 to benchmark annual spend 2050

US$ billion, constant prices



Note:
Malaysia is categorised as a medium-income country (based on World Bank) and is thus benchmarked against China, Indonesia, Turkey, Brazil, Thailand, Mexico and South Africa

Historically, public financing has been the primary engine for infrastructure delivery. Governments are balancing multiple fiscal priorities in a more complex global environment, shaped by heightened geopolitical uncertainty among other factors. At the same time, the investment required—to expand coverage, modernise ageing assets, and support critical climate and digital transitions—continues to grow, creating the need for more diversified sources of funding.

This is where private capital becomes not just an option, but an essential part of the solution. For investors, infrastructure offers a compelling and timely opportunity. Supported by contractual frameworks and proven resilience to economic cycles, infrastructure presents a stable asset class capable of bridging Malaysia's funding gap and unlocking its long-term growth potential.

Keeping up with the world: How does Malaysia's infrastructure score against global and regional average?

Infrastructure delivery has not kept pace evenly across the world. Studies shows that countries which have historically spent more on infrastructure as a share of GDP consistently achieve higher scores in access, quality and efficiency. Scores for Malaysia are:

Roads

76%—above the global (69%) and regional average (69%)—for road infrastructure quality

Logistics

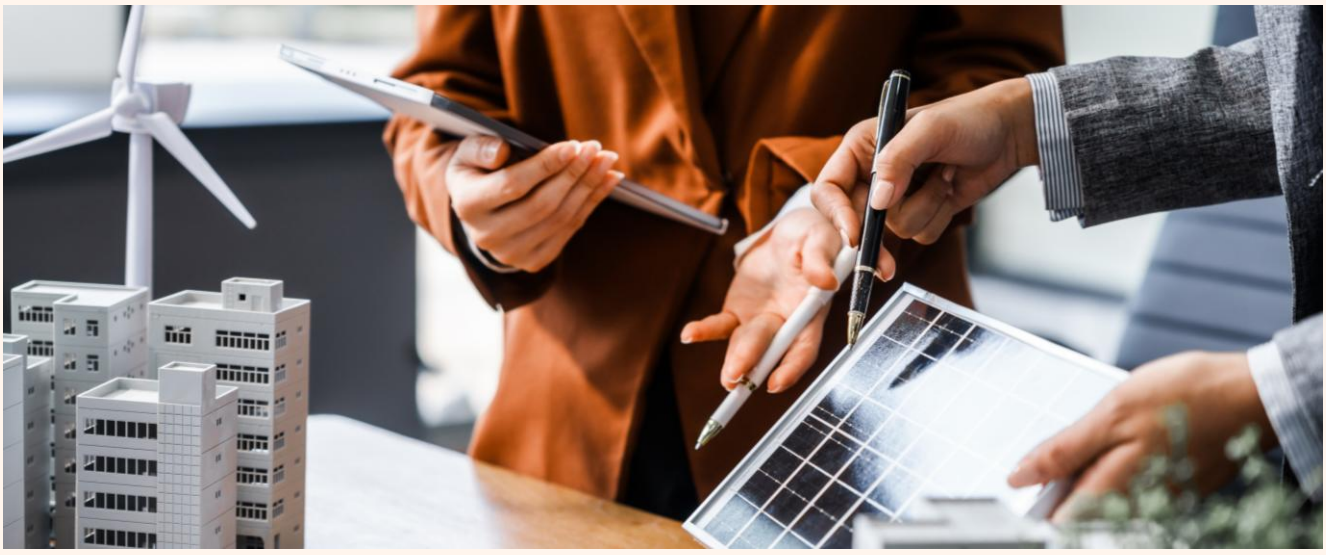
72%—below the regional (75%) and global (73%) average—for logistics infrastructure quality

5G networks

Covers **82%** of the population, higher than 77% in the region and 78% globally.

Renewables

Represents **24%** of total installed capacity, lower than the regional (54%) and global (56%) averages



Note:
Data used to tabulate the scores are as follows: World Bank Group's Logistics Performance Indicators 2.0, World Bank Group's Global Competitiveness Index, International Telecommunication Union, International Renewable Energy Agency. Regional and world averages are based on the 43 countries included in the underlying analysis. The averages are not weighted to population.

Delivering impact across the value chain

The next 25 years will demand an unprecedented surge in global infrastructure investment. However, required funding is not assured, and topline revenues alone will not ensure profitable outcomes. Realising value will require a strategic, system-wide effort from investors, governments, and corporations to remove current constraints and accelerate delivery.

Governments and public authorities

The constraint is no longer just funding. It's the ability to plan, prioritise, and deliver at sustained scale.

- Competition for capital, skills, and supply chains will intensify, particularly in emerging markets and developing economies, and fast-growing urban regions where the majority of new infrastructure projects will be developed
- Long-term project pipelines, delivery capability, and institutional credibility will be as important as fiscal headroom
- Countries that can demonstrate repeatable execution and transparent governance will attract encouraging private capital flows

Investors and lenders

We're seeing a structural shift towards scalable, repeatable delivery models.

- Returns will increasingly depend on portfolio construction across regions, technologies, and delivery models, not simply asset ownership
- Managing construction risk, regulatory change, and system integration becomes central to value creation
- Capital will follow jurisdictions and sponsors that can demonstrate repeatable, scalable delivery across multiple market cycles

Corporates, developers, and the value chain

Capacity, productivity, and resilience are the strategic differentiators.

- In a market that rewards breadth and consistent delivery, firms that can industrialise service delivery, manage complex supply chains, and operate across multiple markets and asset types will outperform those with limited geographic exposure and are reliant on episodic megaprojects
- Investing in digital capability, from building information modelling (BIM) and digital twins to AI-optimised delivery, will separate market leaders from the rest

Communities

Their input will shape how projects affect the daily lives of infrastructure users.

- Communities need to take part in planning sessions and public consultations from the start
- Advocate for local priorities: accessibility, sustainability, and community benefits
- Join advisory groups or co-design workshops to influence decisions
- Demand transparency and accountability on timelines, budgets, and outcomes

About PwC's Global Infrastructure Outlook 2025–50

To understand the scale of the opportunities ahead in infrastructure, PwC has commissioned Oxford Economics to produce a new forecast model. Drawing on the last 20 years of spending data, our Global Infrastructure Outlook 2025–50 uses macro modelling engines, calibrated to today's geopolitical and economic realities. The Outlook covers nine sectors and 20 subsectors in 45 countries and territories (including Malaysia). It recognises the evolution of infrastructure over the past decade—think power storage and data centres—and the heightened importance of sectors such as defence infrastructure and the transmission and distribution infrastructure needed to support the AI revolution.

The result? The most comprehensive, market-ready global infrastructure forecast available, designed to help investors, policymakers, and industry leaders identify and seize opportunities sooner and with far greater precision.

Scan to read our global report

"

The world's infrastructure needs are evolving, and so must the way we deliver and fund them.

A strong investment climate is built on fundamentals: predictable and supportive government policy, credible institutions, clear governance, fair risk allocation, and early stakeholder engagement—enablers that drive smoother, more efficient delivery. And that ultimately gives investors the confidence to commit long-term capital.

Kay-Li Kim

Deals Partner, Capital Projects and Infrastructure Leader, PwC Malaysia

At PwC, we help clients build trust and reinvent so they can turn complexity into competitive advantage. We're a tech-forward, people-empowered network with more than **364,000 people** in **136 countries** and **137 territories**. Across audit and assurance, tax and legal, deals and consulting, we help clients build, accelerate, and sustain momentum. Find out more at www.pwc.com.

Contact us

Kay-Li Kim
Deals Partner,
Capital Projects and Infrastructure Leader
PwC Malaysia
LinkedIn

Patrick Tay
Deals Partner,
Economics and Policy
PwC Malaysia
LinkedIn

Yuien Siang Lee
Director,
Capital Projects and Infrastructure
PwC Malaysia
LinkedIn