



19 MAY, 2025

The hidden cost of our digital convenience

The Malaysian Reserve, Malaysia



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by INTAN BAHU

AS MALAYSIA charts its path towards becoming a regional digital hub, data centres have emerged as a cornerstone of this ambition. These high-tech facilities promise to boost the economy, attract foreign investment and support a modern digital ecosystem. But beneath this polished narrative lies a more troubling reality — one that could bring lasting harm to the environment, the economy and the social fabric of the nation.

Data centres, by design, are energy-intensive behemoths. They house servers that operate around the clock, consuming massive amounts of electricity and water to maintain optimal performance. The government's recent push to attract hyperscale data centre investments — especially through data centre parks in Johor, Selangor and Negri Sembilan — has led to the rapid approval of permits, often without fully assessing the long-term implications. While this may seem like a leap forward in digital progress, it risks locking Malaysia into unsustainable practices that will be hard to undo.

Electricity Demand and Strain on the Grid

Malaysia's national grid is already under pressure, and the addition of high-consumption infrastructure like data centres only adds to the burden. A single hyperscale data centre can consume as much electricity as tens of thousands of homes. Most of this power still comes from fossil fuels, especially coal and natural gas, which contributes to carbon emissions — a

direct contradiction to Malaysia's climate pledges under the Paris Agreement and its own net-zero targets for 2050.

Additionally, data centres could strain supply for other sectors. Industrial parks, residential areas and public infrastructure may face power shortages or rising electricity costs due to redirected resources. Tenaga Nasional Bhd (TNB) will eventually need to expand generation and transmission capacity, which could cost billions and take years — all to support facilities that primarily benefit foreign tech firms.

The Water Footprint and Climate Risk

The environmental cost doesn't end with energy. Data centres require immense volumes of water for cooling — up to millions of litres per day, depending on size and location. This poses a major threat in water-scarce regions or areas already facing drought or seasonal shortages. In states like Johor, where water rationing has occurred in the past, diverting water for server cooling over agriculture or human consumption raises serious ethical and environmental questions.

Moreover, climate change is expected to intensify Malaysia's water-related challenges in the coming decades. Rising temperatures, erratic rainfall and urban expansion will only worsen water scarcity. Investing in water-guzzling infrastructure now — without strong environmental safeguards — could lead to acute shortages in the future.

Limited Economic Spillover

Despite claims of job creation and local development, most data



Source: Media Mula

The demand for immense volumes of water for cooling data centres poses major threat in water-scarce regions or areas already facing drought

centres are highly automated and capital-intensive, offering limited employment opportunities beyond construction and minimal long-term staffing. Skilled jobs related to data centre operations may be filled by foreign experts, while profits are repatriated to international parent companies.

This undermines the broader goal of inclusive economic growth. Local communities near data centres often bear the brunt of environmental degradation, noise and traffic, without seeing meaningful returns. If unchecked, these dynamic risks deepening inequality and breeding public resentment — a pattern seen in other countries that have raced to host data infrastructure without clear benefit to the public.

Digital Infrastructure vs Digital Equity

Another less discussed aspect is the issue of digital equity. While Malaysia expands its data infrastructure in urban and industrial zones, many rural and underserved areas still lack reliable Internet access. According to the Malaysian Communications and Multimedia Commission (MCMC), some remote regions continue to struggle with basic connectivity, much less access to cloud services or digital platforms.

Thus, while cities benefit from high-speed networks and the latest technologies, rural communities remain sidelined. This growing digital divide raises critical questions about priorities: Are we building a digital economy that serves everyone or only the elite few?

A Call for Responsible Development


Malaysia does not need to reject data centres altogether. However, their growth must be guided by stringent policies, transparent impact assessments and a clear framework for public benefit. Environmental regulations should mandate renewable energy (RE) sourcing for all new data centres, restrict excessive water use, and enforce local hiring and community reinvestment requirements.

There must also be an honest conversation about trade-offs. Policymakers should ask: Who gains from these investments? Who pays the price? And are the long-term costs to the environment, society and public resources justified by short-term economic returns?

Rethinking the Digital Rush

The digital economy is here to stay, and data centres are part of that future. But digital progress should not come at the cost of environmental collapse or social displacement. Malaysia has an opportunity to learn from global missteps and lead with a model that balances growth with sustainability.

If left unchecked, the expansion of data centres will not only strain national resources but may also deepen inequality and undermine Malaysia's commitment to a green, inclusive economy. For a truly resilient digital future, we must ensure that the convenience of today does not become the burden of tomorrow.

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