Asia is weighing data-centre ambitions against sustainability

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The jungles of Johor, a Malaysian state, were cleared to grow pepper in the 1800s. After that came rubber and oil-palm plantations, followed by factories making electronics. Today data centres are thriving there, and are embroiled in a geopolitical tussle[1] between America and China. But in Johor, other concerns are on people's minds: how to make the data-centre boom sustainable. Johor's boom stems from a decision made by its neighbour. Singapore has long been South-East Asia's data-centre hub, meeting the region's surging demand for digital services. But it began to fret[2] about how much water, land and energy the sites use. So, in 2019 it became the first Asian country to pause new construction. Firms then built more in Johor, which is well connected to Singapore. Now Malaysia is grappling[3] with similar problems. The neighbours illustrate how considerations can differ. Tiny Singapore has little appropriate land free for new data centres. They already guzzle[4] 7% of its electricity, most of which is generated from natural gas. Officials worry unfettered growth will threaten net-zero goals. Though the government began approving some new data centres last year, it did so at a much slower pace. It has also introduced new water and energy-efficiency guidelines. Johor, by contrast, has lots of cheap land and power. Malaysia's government, keen to attract foreign investment, has introduced tax incentives for data-centre developers. It hopes the new digital infrastructure boosts its existing tech industry and attracts AI startups. Malaysia still has some constraints. Johor has long faced episodic water shortages. If these worsen, data centres "could become the villain", says Francis Hutchinson of ISEAS-Yusof Ishak Institute, a Singaporean think-tank. Lee Ting Han, a local politician who chairs a new state committee monitoring data centres, thinks their growth is "just too fast" for existing infrastructure. Some also worry the boom will create few jobs. Once operational, data centres usually require few staff on-site. High-tech parts, like chips, are often imported. Mr Lee says Johor "understands the potential" of data centres but is not yet seeing "tangible benefits". The carbon cost is also a downside. Most of Malaysia's electricity, like Singapore's, is generated by burning fossil fuels. Extra demand from data centres will probably increase emissions. In South-East Asia's tropical climates, more water and power are needed to cool servers. Two things could help. One is if the digital boom speeds up Asia's energy transition. Google, for instance, is investing in solar power in Taiwan. The second is to learn from Singapore. Malaysia is already doing so. Chang Lih Kang, Malaysia's minister of technology, says the government is referring to Singapore's efficiency guidelines while writing its own. Though this will help, data centres' demands will grow. Excluding China, they will consume 8% of Asia's power by 2030, up from 4% today, predicts Morgan Stanley, a bank. The sites have become critical infrastructure, like ports or airports, and no government wants to be left behind. Policymakers will continue to balance digital ambitions with resources.

1. Fight/struggle 2. Worry 3. Coping with 4. Gulp down/swallow/ingurgitate

1° Explain how Malaysia is dealing with its growth nowadays. (80 words)

2° According to you, should resource management prevail over digital ambitions? (180 words)

Suggested answers:

1° Explain how Malaysia is dealing with its growth nowadays. (80 words)

It is a pivotal moment for Malaysia, its evolution being propelled by its link with Singapore, the region's top-notch digital reference, currently rethinking its stance towards data-centres. It's become Malaysia's opportunity to make the most of its cheap land, and cope with issues such as water and energy consumption in a tropical environment, with a pollution risk while potentially exhausting its fossil fuels. Now is Malaysia's time to make this technology become ever more sustainable and profitable over time for this boon not to turn into a bane.
(88 words)

2° According to you, should resource management prevail over digital ambitions? (180 words)

Digital ambitions usually boom at the expense of resource management, but this situation cannot last forever, at such reckless speed. Detrimental as it may be, a digital turn seems inevitable in today's globalized society, especially with some administrations harking back to protectionist moves, causing the others to be dependent on flimsy contingencies. Being autonomous and on a par with other digitally-proficient economies seems to be adequate nowadays in order to weigh on the international arena. Smaller countries like Ireland, for instance, whose economic capacities are scant, whose history has been of subjection, have ventured to expand on this new sphere of influence and attract foreign investors through low corporate taxation, thus entailing development in other sectors too, in the long term. This being said, power consumption by data centers now surpasses that of residential homes, in Ireland, which, besides environmental destruction, raises the questions of gas-emissions and cost. Sustainability, however hesitant it may be, seems to be the best compromise. It is a long-run bet, and pre-existing infrastructures are immediately cost-effective, making it demanding to enforce environmental protection and resource regulation. But both digital initiatives and resource control are fundamental for countries to remain self-determining.

(195 words)