

# Greening the Asean economy: From hype to reality?

The region's transition to a green economy will inevitably hinge upon expanding green sectors such as clean energy and green infrastructure. BY LIU JINGTING, ULRIKE SENGSTSCHMID, BOWEN YAN AND THI HANG BANH

AT THE United Nations Climate Change Conference (COP 28) last year, four members of the Association of Southeast Asian Nations – Brunei, Malaysia, Singapore and Thailand – pledged to support a threefold increase in renewable energy capacity by 2030 as part of the Global Renewables and Energy Efficiency Pledge.

Additionally, nine out of 10 Asean members, except the Philippines, have set net-zero emissions or carbon-neutral targets for 2050 (2060 for Indonesia).

Asean's transition to a green economy – where growth relies on low-carbon investments, energy efficiency, and biodiversity protection, according to the United Nations' definitions – will inevitably hinge upon expanding green sectors such as clean energy, green infrastructure and sustainable transportation.

However, despite its ambitions to increase clean energy capacity and reduce emissions, Asean's clean sectors remain small and the progress of greening the economy is still slow.

Until the wide diffusion and adoption of green tech throughout the region to transform the "dirty" sectors, the hope for green growth might remain an inflated one.

## **Asean cleantech on the rise, but challenges persist**

The good news is, in the past decade, Asean has experienced an impressive surge in cleantech investment.

The region saw an influx of US\$90 billion in foreign direct investment (FDI) into the green sectors – which is almost US\$40 billion more than what India and China received during the same period, according to research by the Asia Competitiveness Institute.

At its peak in 2020, the value of cleantech FDI projects completed had tripled from 2013 levels – with Vietnam, Indonesia and the Philippines reaping the bulk of that.

There has also been a shift in investors. Advanced economies including the European Union, Japan and the US had accounted for the majority of completed cleantech FDI projects, but in recent years, investments have increasingly come from within the region and Asian neighbours such as China and South Korea.

However, despite its stellar increase in recent years, cleantech FDI flows remain only a small share of total FDI – representing about 15 per cent of total FDI stock in Asean, less than 20 per cent for the EU, and slightly more than 10 per cent for China. Similarly, despite all the buzz about cleantech goods trade, exports of these goods amount to only less than 8 per cent of total goods exports for any Asean country between 2011 and 2021 – with little rising trend.

The green sectors are still too small compared to the entire economy. To consider a true transition towards sustainability, one must also look at other sectors – and these other sectors currently have a higher emission intensity.

On average, for Asean, every dollar of output by the entire economy amounts to



Fostering international collaboration may help more green technology diffuse to Asean, particularly for countries lagging in innovative capacity. PHOTO: BT FILE

almost five times the emissions of a dollar of output within the key cleantech industries alone.

Emissions-reducing technological innovation applicable to sectors outside the cleantech sector could be that missing link between driving economic growth and decarbonising the economy.

## **Innovation: The key to balancing the emissions-growth dilemma**

Until carbon storage technologies are widely available, emissions-mitigating technologies for production processes are particularly relevant as countries expand their carbon pricing schemes and seek to decarbonise their supply chains.

A case in point is the EU's carbon border adjustment mechanism that came into force in October last year. It effectively imposes an additional carbon price on high-emissions imports such as cement and steel from countries with more lax climate regulations.

As the global regulatory environment tightens, innovating operational and production processes might just become a daily reality for firms to comply with regulations, stay competitive and keep afloat.

Asean boasts quite a number of inventions and applications of climate change mitigation technology patents targeting production processes – especially for the chemical industry, and increasingly also for metal processing and agriculture. But Asean still lags in terms of overall green tech patent invention and application, accounting for less than 1 per cent of the total number of green tech patents, both as a destination market for patent filings and as an inventor.

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Among the leading three green tech inventors within the region – Singapore, Malaysia and the Philippines – only 20 to 40 per cent of their inventions have a foreign

co-inventor, but for Vietnam and Indonesia, almost 90 per cent of their inventions involve foreign collaboration.

## **Beyond innovation: Policy and finance for a sustainable Asean**

To take the sustainability narrative beyond the cleantech sectors into the wider economy, it is essential to support businesses of all sizes to take up green innovations and transform operation and production processes.

Turning environmental risks into opportunities requires more efficient public-private sector interactions, particularly for small and medium-sized enterprises, which include simplifying regulations and creating a transparent financing and resource support environment, as Singapore Business Federation's head of Net Zero Transition Programme Office Hu Ching pointed out during the Festival of Ideas organised by Lee Kuan Yew School of Public Policy.

In addition, riding on the rising interest in sustainable investment, the region can grasp the opportunity to attract more private funding to finance greening the economy. Innovative financial solutions combined with active client engagement are critical in supporting all kinds of businesses to overcome the initial hurdles and attain their net-zero targets, according to OCBC group chief sustainability officer Mike Ng.

A mix of green tech innovation applicable to the wider economy, inclusive strategies that provide firms – particularly SMEs – with the tools they need for making the transition, a coherent and competitive policy framework, and expanded financing opportunities will help Asean to go beyond the hype and deliver on the green growth promise.

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