Star Special
THE STAR, SATURDAY 24 MAY 2025
Chair of Asean 2025

For a better future

Chair of Asean 2025
Supported by The Star

PETRONAS shaping Asia's energy future

- PETRONAS announced its net-zero ambition in 2022
- Firm committed to achieving net-zero carbon emissions by 2050

By DOREENN LEONG
doreenn@thestar.com.my

AS the sun rises on a new era of energy, few companies are as uniquely positioned – or as resolutely committed – to lead the transition to a lower carbon future as national oil company Petroliam Nasional Bhd (PETRONAS).

With a legacy rooted in powering Malaysia and the region, the oil and gas giant is not merely responding to change – it is engineering it.

At the heart of PETRONAS' long-term roadmap lies a bold ambition: to achieve Net Zero Carbon Emissions (NZCE) by 2050, which contributes to Malaysia's net-zero commitments.

It announced a net-zero ambition in 2022.

But this is no ordinary pledge. It's an intricate strategy that balances the dual imperatives of energy security and environmental stewardship.

According to PETRONAS projects, technology and health, safety, security and environment senior vice-president Mohd Yusri Mohamed Yusof, the plan rests on three key pillars.

One of the pillars of its energy transition strategy is to focus on its core oil and gas production, providing more energy with less emissions.

The second pillar is to explore new business growth opportunities in renewable energy, hydrogen, green mobility, specialty chemicals, carbon capture and storage (CCS) and bio-based value chain to meet the demands of a changing energy landscape.

The third pillar focuses on its commitment to achieve net-zero carbon emissions by 2050.

Mohd Yusri points out that its NZCE contains short, medium and long-term targets that rely on four decarbonisation levers to improve its operational excellence and environmental performance.

These are zero routine flaring and venting, energy efficiency, electrification and CCS.

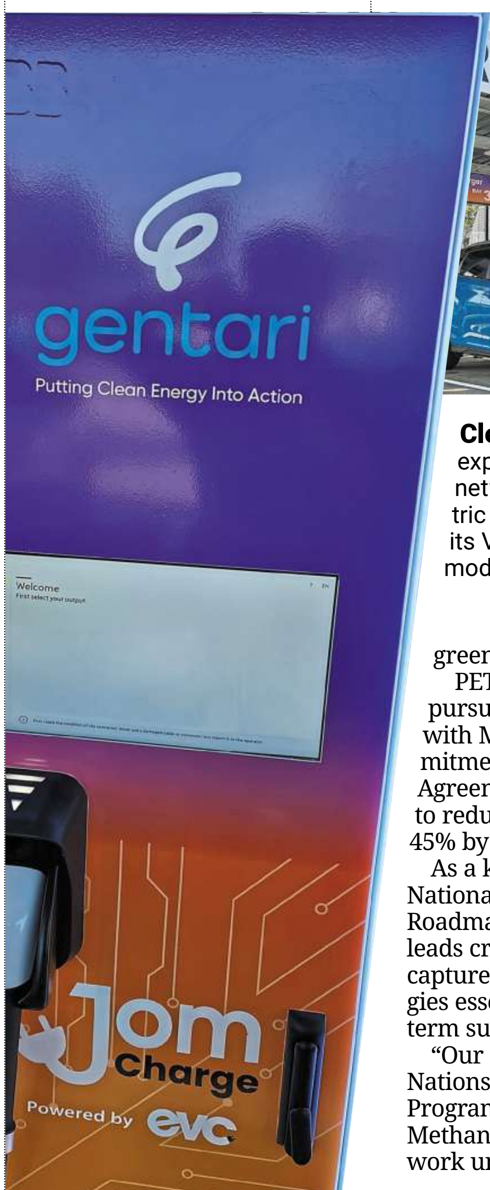
Already, the results are showing. "We are making steady progress toward our 2030 target of reducing our group-wide emissions by 25%," Mohd Yusri says.

PETRONAS capped its emissions at 46.06 million tonnes of carbon dioxide equivalent ($MtCO_2e$) in Malaysia – below its 2024 target – and halved its methane emissions from 2019 levels well ahead of schedule.

"Our NZCE Pathway sets short and mid-term targets to reduce methane emissions in our group-wide and Malaysian natural gas value chain. Accelerating methane emissions is important, given methane's potent impact on global warming," he adds.

Beyond its decarbonisation efforts, Mohd Yusri shares that PETRONAS is also expanding into lower carbon energy growth areas.

"For instance, in 2022, we established Gentari to fully focus on clean energy solutions in the energy transition space, including renewable energy, hydrogen and green mobility," he adds.



Clean energy: Gentari is expanding its EV charging network and promoting electric vehicle adoption through its Vehicle-as-a-Service model.

PETRONAS' NZCE plan is not pursued in isolation. It aligns with Malaysia's national commitments under the Paris Agreement, including the pledge to reduce carbon intensity by 45% by 2030.

As a key player in Malaysia's National Energy Transition Roadmap (NETR), PETRONAS leads critical projects in carbon capture and hydrogen – technologies essential for achieving long-term sustainability.

"Our adoption of the United Nations Environment Programme's Oil and Gas Methane Partnership 2.0 framework underscores our commitment to accurate and comprehensive methane emissions reporting, a critical aspect of global climate action."

PETRONAS is also a key enabler of the NETR, in which it will lead two emissions abatement projects for the country, CCS and hydrogen, as well as contributing to the development of future fuels.

Global standards and transparency remain paramount. The company adheres to the Greenhouse Gas Protocol and the Oil and Gas Methane Partnership 2.0 framework, showcasing its dedication to credible reporting and global best practices.

For PETRONAS, sustainability isn't a side project – it is a core strategy. "PETRONAS' Energy Transition Strategy is designed to balance energy security, affordability and sustainability, through three core pillars: monetising and reducing emissions from our core business, expanding cleaner energy through new business and advancing our pathway to net zero.

"Delivering net-zero carbon emissions is a key component of our sustainability approach. So sustainability is very much directly integrated into our core business strategy," Mohd Yusri highlights.

The company has embedded environmental goals across its operations and supply chain as well as developed sustainability solutions in-house and with partners, introducing advanced materials to leveraging corrosion prediction tools.

Malaysia's geology positions it well as a CCS hub, and PETRONAS is leading the charge. It views CCS not just as a way to decarbonise its offshore operations, but also as a scalable business model for hard-to-abate industries at home and abroad.

At the same time, electrification is gaining momentum. PETRONAS is deploying solar solutions at its onshore facilities and exploring offshore electrification strategies.

Through Gentari, its clean energy subsidiary, the company is also building out solar projects, electric vehicle (EV) charging networks and hydrogen logistics – all crucial levers in the global decarbonisation effort.

"In green mobility, Gentari is expanding its EV charging network and promoting electric vehicle adoption through its Vehicle-as-a-Service model, which offers seamless fleet electrification supported by EV leasing, maintenance and charging services.

"On the hydrogen front, we are maturing hydrogen opportunities while exploring logistics solutions through strategic partnerships for clean ammonia shipping and floating storage," Mohd Yusri says.

As the world navigates the complex realities of the energy transition, PETRONAS is emerging as a torchbearer – not just for Malaysia, but for Asia.

Its leadership at the Energy Asia forum and technical partnership with the UK-based Energy Institute underscore its commitment to fostering innovation ecosystems for the region's net-zero future.

In the words of Mohd Yusri : "We're not just delivering energy – we're building a sustainable legacy." And in doing so, it is lighting the way for others to follow.

Chair of Asean 2025
Supported by The Star

Leaning on AI, automation in its sustainability efforts

By DOREENN LEONG
doreenn@thestar.com.my

ARTIFICIAL intelligence (AI) and automation are at the heart of Petroliam Nasional Bhd's (PETRONAS) sustainability efforts, playing a transformative role in enhancing operational efficiency, reducing emissions and driving resilience in the global energy landscape.

PETRONAS projects, technology and health, safety, security and environment senior vice-president Mohd Yusri Mohamed Yusof says the national oil and gas company is strategically leveraging smart energy solutions, digitalisation and AI to power its sustainability agenda.

"These technologies are integral components of our strategy to deliver energy responsibly and contribute to a sustainable future," he explains.

In November 2022, PETRONAS established an AI Centre of Excellence (CoE) to accelerate the development and deployment of AI solutions across its operations through collaboration with global partners.

The first round of collaborations involved Baker Hughes, Boston Consulting Group and Microsoft.

Through the AI CoE, PETRONAS will work with the partners to innovate, develop and potentially commercialise AI solutions by leveraging each other's technologies, expertise and experience.

In August 2023, PETRONAS and AIQ, an Abu Dhabi-based technology company, entered into a memorandum of understanding to share experiences in building AI solutions that may potentially accelerate the energy transition and drive sustainability across energy operations.

AIQ is a technology pioneer focused on driving the transformation of the industrial sector powered by AI.

As part of the collaboration, the two parties worked to pilot and test AI solutions to discover viable applications and use cases that can create value across multiple business verticals in the energy sector on a global scale.

PETRONAS and AIQ will also develop AI and advanced analytics best practices and frameworks to ensure commercial and operational excellence throughout their joint projects.

One of the standout AI implementations is at its liquefied natural gas (LNG) complex in Bintulu, Sarawak, where AI is being used to boost energy efficiency and reduce emissions.

Beyond AI, PETRONAS is embracing automation and advanced connectivity to further strengthen operational safety and reduce environmental impact.

The use of private 5G networks enables remote autonomous operations – especially critical in offshore environments – minimising the need for on-site personnel, reducing safety risks, and lowering the carbon footprint tied to transport and logistics.

Mohd Yusri shares that this technology reduces the need for personnel to be physically present, thereby minimising safety risks and lowering the carbon footprint associated with transportation and logistics.

Mohd Yusri: These technologies are integral components of our strategy to deliver energy responsibly and contribute to a sustainable future.

> Technologies like remote autonomous operations are already in use at PETRONAS

Technologies like remote autonomous operations are already in use at PETRONAS' floating LNG (FLNG1) facility.

"Through these initiatives, PETRONAS is demonstrating its commitment to leveraging technology for safe, sustainable and efficient energy practices," Mohd Yusri says. Meanwhile, its Alpha LNG platform – a comprehensive enterprise-level digital twin – offers a real-time virtual representation of operations.

This digital innovation supports data-driven decision-making, helping PETRONAS optimise production while balancing efficiency and emissions reduction across its value chain.

But technology alone isn't enough. PETRONAS understands that partnerships and people will make or break the energy transition.

That's why it has launched initiatives like the Methane Leadership Programme (MLP) 2.0 and the PETRONAS Supplier Support Programme (PSSP).

These platforms empower South-East Asian peers and over 1,000 Malaysian suppliers to accelerate their own sustainability journeys.

MLP unites energy companies from South-East Asia to strengthen their methane emissions reduction targets and enhance coordination between businesses and governments. It also supports the Global Methane Pledge signed by over 150 countries, including Malaysia.

Meanwhile, the PSSP provides the necessary tools, capability training and access to transition financing for Malaysia's oil and gas services and equipment suppliers to increase their adoption and disclosure of sustainability practices.

PETRONAS is also signalling a strong commitment to open collaboration, tapping into the larger innovative ecosystem to seek solutions. It has forged a partnership with Energy Institute in line with its efforts to foster impactful innovation ecosystems supporting Asia's net-zero ambitions.

"We became the first South-East Asia-headquartered company to join the UK-based chartered professional membership body as a technical partner. This partnership leverages shared expertise, resources and passion to drive progress towards a sustainable and resilient energy future," Mohd Yusri points out.

Recognising the need for human capital, PETRONAS is also cultivating a future-ready workforce. Programmes like BeDigital Bootcamp provide employees with the digital skills required to lead in a low-carbon world.

"We are focusing on reskilling and upskilling our staff with targeted training related to our decarbonisation efforts. We also work closely with partners to ensure there is a strong pipeline of future talents with the technical competencies that will be needed to meet industry demands, in programmes such as the BeDigital Bootcamp," he says.

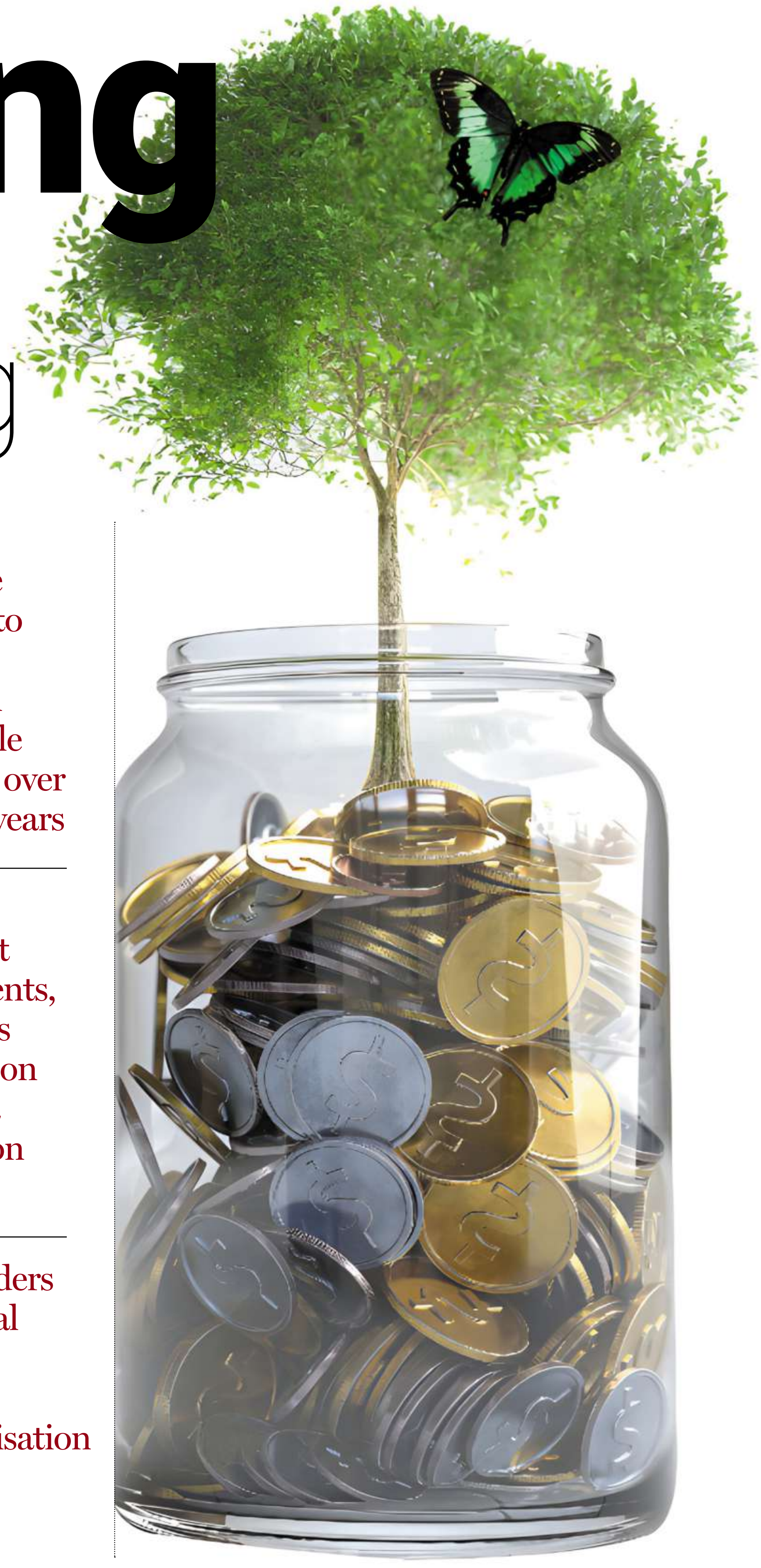
Meanwhile, its Innovation Gateway @ PETRONAS (iG@P), an online platform crowdsourcing cutting-edge solutions from innovators from the industry and academia to collaborate with PETRONAS in proposing solutions that drive growth.

"iG@P promotes an open, accessible and transparent process, encouraging participation from brilliant minds outside of PETRONAS. This platform complements PETRONAS' state-of-the-art technology hubs in key locations in the world, expanding its innovation ecosystems to tackle complex business challenges," he adds.

Mohd Yusri explains that by integrating AI and automation across its ecosystem, PETRONAS is not only enhancing its operational capabilities, but also fast-tracking its journey toward a lower-carbon, more sustainable energy future.

Essentially, these technologies are vital tools in navigating the complexities of the global energy transition and reinforcing PETRONAS' role as a responsible energy provider.

Banks mobilising billions in green financing



By YVONNE TAN
yvonne@thestar.com.my

Chair of Asean 2025
Supported by The Star

GREEN financing, also known as sustainable financing, is no longer just a buzzword as lenders all over the world are stepping up efforts within the segment.

Within Asean, this emphasis on providing funds to create environmentally friendly outcomes has definitely been gaining traction, if numbers are anything to go by.

RHB Bank Bhd group officer-in-charge of sustainability Angus Salim says green finance is a core sustainable lever and key decarbonisation strategy for the banking group.

"Financial and impact materiality is embedded into our business decisions across banking services in Asean. We will be mobilising RM90bil in sustainable financial services by 2027, which is a significant increase from our RM50bil target by 2026, to support measured and low-carbon transition, and reinforce our net-zero commitment by 2050," he says.

A key focus for 2025 is the establishment of the RHB Sustainable and Transition Finance Framework and Guidelines, which the lender plans to launch in the third quarter of the year.

"This framework will guide us in expanding green and transition financing solutions, helping our clients align their business growth with climate-resilient pathways."

As of last December, RHB had mobilised over RM41bil in sustainable financing, surpassing its 2026 target of RM50bil.

Its portfolio consists of 51% green financing (renewable energy and energy efficiency projects, green buildings and sustainable transport), 21% social financing and 28% environmental, social and governance-linked investments and structured products.

CIMB Group Holdings Bhd group chief sustainability officer Luanne Sieh says, as a financial institution with a footprint across Asean, CIMB plays a pivotal role in green financing by channelling capital toward environmentally sustainable projects and businesses.

"With eight out of 10 Asean member states committed to net-zero targets, we recognise both the immense business opportunities for ourselves and our clients, in addition to our responsibility to support governments across our markets in financing and facilitating their transition."

She says CIMB has more than tripled its initial target to mobilise RM30bil in green, social, sustainable impact products and services (GSSIPS) to RM100bil between 2021 and 2024.

Last year, it exceeded its own goal by mobilising RM117bil in sustainable finance by the end of the year.

It mobilised over RM31bil in GSSIPS, with RM17.8bil in sustainability-themed financing (green, social, sustainable and sustainability-linked instruments) and RM13.3bil in economic inclusion (financing for low-income consumers and micro and small enterprises).

Public Bank Bhd managing director and chief executive officer Tan Sri Tay Ah Lek says green financing is a key pillar of the Public Bank Group's sustainability agenda, supporting businesses and individuals to transition towards a low-carbon economy.

"To that end, the group has set a target to mobilise RM100bil in sustainable financing by 2030. In supporting this goal, the group has mobilised RM3.8bil in green financing and RM4.1bil in sustainability-linked loans since 2020," he says.

Tay says the Public Bank group plays a crucial role in shaping Asean's green future by facilitating capital flow towards sustainable projects and businesses.

"Recognising the importance of sector-specific strategies, it has set sectoral targets for palm oil, cement and construction to support targeted decarbonisation efforts within our portfolio. This not only aligns with global climate goals, but also creates opportunities to finance our customer's transition to low carbon operations, ensuring they can adopt greener practices without compromising growth and stability," Tay adds.

OCBC Bank (M) Bhd head of strategy and transformation Saw Poh Hoon says OCBC supports clients across Asean and is present in key markets across the region, including Singapore, Malaysia, Indonesia, Hong Kong and China.

- Banks are expected to mobilise billions in sustainable financing over next two years
- Urgency to support governments, businesses to transition towards a low-carbon economy
- Some lenders set sectoral targets to support decarbonisation efforts

"As a key banking partner for clients with presence across Asean, we recognise our role as a key provider of sustainable financing solutions to support clients and their extensive supply chains across the region.

"For instance, OCBC is supportive of the Johor-Singapore Special Economic Zone agreement by Malaysia and Singapore where last year, we supported about 260 new mid-sized enterprises, mainly from the services, construction and manufacturing, and wholesale and retail trade sectors, in setting up operations in Malaysia," she says.

OCBC's main approaches to sustainable finance are engaging clients on their net-zero transition and contributing to building sustainable supply chains.

Malayan Banking Bhd group chief sustainability officer Shahril Azuar Jimin says the lender's efforts to support a transition within the region is reflected in its commitment to mobilise RM80bil in sustainable finance by this year.

"We have successfully exceeded this target, a year in advance, achieving a cumulative total of RM115.17bil as of last year. The group mobilised more than RM10bil towards green financing in 2024 alone, spanning our corporate, investment and business banking as well as retail, insurance and global markets division," he adds.

Hong Leong Bank Bhd (HLB) chief sustainability officer Chow Sheng Wai says the bank initially targeted RM500mil in renewable energy (RE) financing within five years, a goal that it has already surpassed.

"HLB has now set an ambitious target of RM4bil by this year, having already approved over RM3.5bil for bioenergy, solar, hydro plants and other RE projects vital for a greener regional supply chain."

AmBank Group chief sustainability officer Amanah Aboobucker says the lender views the provision of green financing as an opportunity to drive growth and an imperative enabler in addressing climate change.

"We have embarked on this journey since 2020 when we developed our green financing guidelines for the energy, building, manufacturing, transport, water, waste management and palm oil sectors."

She says the guildelines facilitated its strategy to promote green loans and financing to its customers, facilitating disbursement of over RM3bil last year.

Championing the sustainability agenda

Chair of Asean 2025
Supported by The Star

By YVONNE TAN
yvonne@thestar.com.my

WHEN it comes to green financing initiatives and strategies, banks appear to be going all out.

RHB banking group officer-in-charge of group sustainability Angus Salim says the lender's sustainability agenda is anchored by three key pillars: sustainable finance, climate action and financial inclusion, ensuring long-term resilience and economic growth.

"Through innovative green and social-finance products and solutions such as Malaysia's first Sustainable Cross Currency Repurchase Agreement and the Green Product Bundling Scheme and Environmental, Social, and Governance or ESG deposits, we are expanding access to financing that supports both small and large businesses in adopting sustainable and low-carbon practices," he says.

He reckons beyond financing, the bank is also taking steps in climate action and decarbonisation, with a commitment to achieving carbon-neutral operations by 2030 and net-zero emissions by 2050.

"Our strategy focuses on reducing financed emissions in five high-impact sectors within our business, driving growth in green financial services and supporting companies committed to carbon neutrality and integrating sustainable and low-carbon practices into our own operations," adds Angus.

CIMB Group Holdings Bhd group chief sustainability officer Luanne Sieh says the lender is actively engaging its clients to support their business transition towards one that supports a low-carbon economy.

It does this via various initiatives such as setting Paris-aligned net-zero targets where it aims to be carbon neutral by 2050 including financed emissions.

Sieh says the bank also has innovative finance initiatives to support client transitions such as when it served as joint lead arranger, joint lead manager and bookrunner for Johor Plantations Group's RM1.3bil sustainability-linked sukuk.

According to Sieh, the landmark issuance marked the first sukuk from the plantation sector under the Securities Commission's sustainable and responsible investment sukuk framework.

Malayan Banking Bhd (Maybank) group chief sustainability officer Shahril Azuar Jimin says over the years, the bank has built a strong suite of local and regional ESG products, initiatives and services aligned with its mission of "Humanising Financial Services".

Among its notable ESG initiatives locally and regionally is the publication of the *Maybank Group Net Zero White Paper – Banking On A Better Tomorrow: Our Commitment To Net Zero*, which provides an overview of Maybank's approach to setting net-zero targets for select hard-to-abate sectors while addressing the unique regional challenges in driving both climate action and economic sustainability in Asean.

Others include its Maybank myimpact SME, which is a regional initiative specifically designed to support the development of small and medium enterprises by providing solutions based on ethical and sustainable banking values and the Maybank Sustainability Practitioner Certification Programme, which is designed to provide credibility for sustainability practitioners.

Hong Leong Bank Bhd (HLB) chief sustainability officer Chow Sheng Wai says its ESG initiatives are designed to drive decarbonisation and promote a green supply chain across Asean.

Chow says HLB has committed to three net-zero targets in which by 2026, it aims to achieve 15% to 25% reduction of greenhouse gas emissions; by 2030, it aims to achieve net zero on its operational emissions for Scope 1 and 2, and ultimately by 2050, HLB wants to achieve net-zero emissions across Scopes 1, 2 and 3.

"The bank is achieving this through energy-efficiency measures, including LED retrofitting, solar panel installations, and the launch of its Enterprise Green Data Centre. A key advisory initiative that HLB offers its clients is the Sustainability Roundtable series, which fosters collaboration among industry experts, government agencies, and key decision makers."

OCBC Bank (M) Bhd head of strategy and transformation Saw Poh Hoon says some of OCBC's main ESG initiatives here and regionally include its first-in-market SME Energy Assessment or SMEEA tool which aims to help SMEs gain easy access to green building certification and green finance.

"Through this, we support clients in understanding the impact of their energy use and applicable green building," Saw says.

She points out that OCBC Malaysia also structured its first Aluminium Stewardship Iniatiative Sustainability-Linked Trade Facility, providing RM120mil to KJM Aluminium Can Sdn Bhd, a subsidiary of Can-One Bhd. The facility was designed to incentivise sustainable sourcing practices within the aluminium industry.

Public Bank Bhd managing director and chief executive officer Tan Sri Tay Ah Lek says, as part of its commitment, the lender has published its Decarbonisation Plan which outlines its approach to achieving carbon neutrality by 2030 and net zero by 2050.

In addition, the group has signed a memorandum of understanding to initiate the installation of solar panels at 135 branches in Malaysia, further accelerating its efforts to achieve carbon neutrality.

Beyond internal operations, its community efforts include a collaboration with Yayasan Hijau Malaysia to plant 1,000 tree saplings, as well as the Run for Change 2024 events in Kuala Lumpur and Penang, Tay adds.

AmBank Group chief sustainability officer Amanah Aboobucker says the group announced its net zero aspiration in 2023 and has developed a Net-Zero Transition Plan this year to chart a pathway to achieve this aspiration for select hard to abate sectors with near term 2030 targets.

She says the lender's net-zero transition plan entails engaging customers in the built environment, energy and agriculture sectors to understand, their own transition plans, identify opportunities and promote sustainable, transition and green financing.

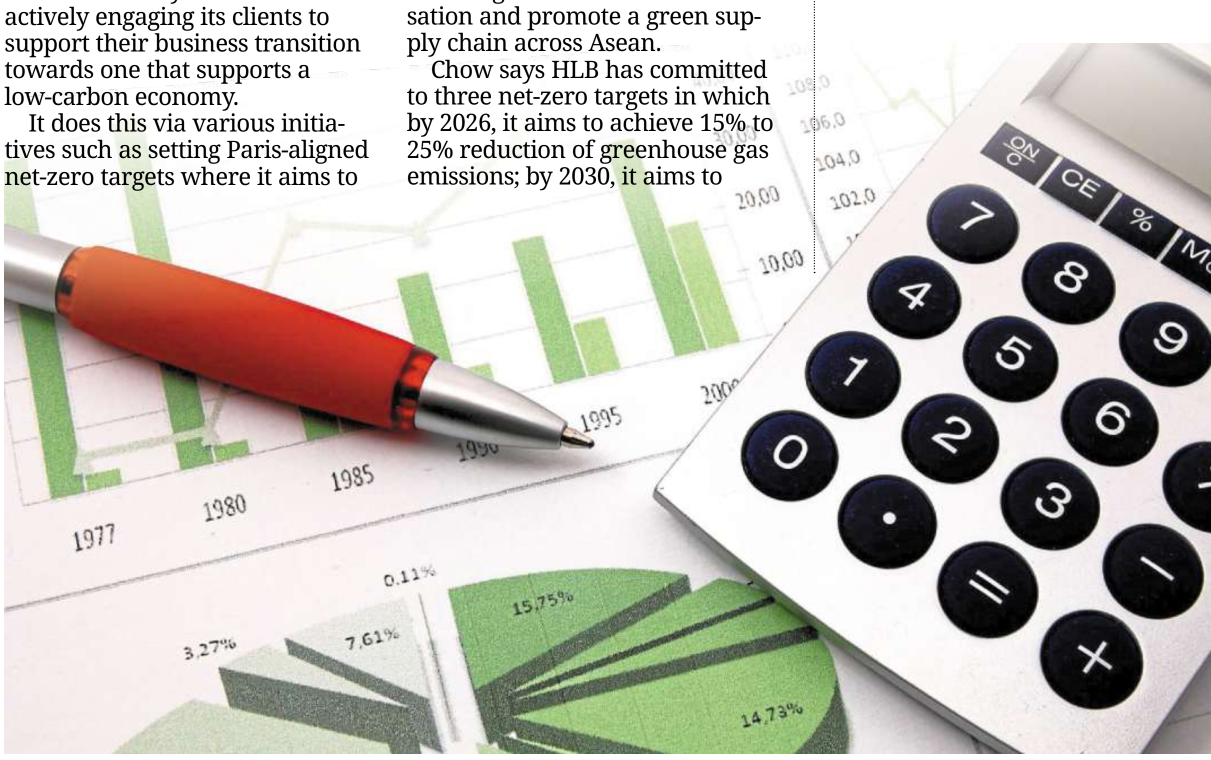
- Banks are introducing innovative green financing strategies
- Installation of LED lighting, solar panels at branches among key initiatives
- Lenders are structuring exclusive facilities to push green loans to clients

Tay: Part of Public Bank's community efforts include a collaboration with Yayasan Hijau Malaysia to plant 1,000 tree saplings.

Saw: OCBC's SME Energy Assessment tool aims to help SMEs gain easy access to green building certification and green finance.

Sieh: CIMB is actively engaging its clients to support their business transition towards one that supports a low-carbon economy.

Shahril: Maybank has built a strong suite of local and regional ESG products, initiatives and services aligned with its mission of 'Humanising Financial Services'.



Premier choice: An artist's impression of the final phase of Ponderosa Vista's double-storey, semi-detached homes launching this year, featuring 50 exclusive units with spacious land sizes starting from 40ft x 100ft.

ELEVATED LIVING, GROUNDED IN GREEN

A HOME is more than just a shelter – it's a long-term investment and a space that shapes daily life.

To ensure long-term value and liveability, developers must prioritise quality planning, construction and post-completion support, all in alignment with sustainability principles.

This underpins Berinda Properties Sdn Bhd's approach.

With over 50 years of experience and as part of the Kuok Group, the Johor Baru-based developer continues to offer well-planned, freehold precincts such as Taman Ponderosa and Taman Molek in Johor Baru – both gated and guarded for security and peace of mind.

Green impact

Berinda Properties believes that eco-friendly design is key to creating a long-lasting green living environment.

With a strong commitment to leaving a green footprint for future generations, both the Molek Pine 4 luxurious low-density living apartments and the Ponderosa Lakeside luxury apartments offer a clean and green environment.

Features include a cross-stack ventilation building design to optimise natural ventilation and daylighting, along with the use of chemical-free materials.

To further maximise the green impact, sustainable features like rainwater harvesting, greywater treatment and recycling, solar photovoltaic panels and LED lights are widely incorporated.

These environment-friendly concepts bring invaluable benefits to the entire development, including energy and water conservation, reduced chemical emissions and increased property value.

Upscale living

Homebuyers looking for high-rise living in a mature township may want to consider Molek Pulai Serviced Apartments.

Strategically located in the heart of Taman Molek, this development offers 150 units with two practical layout options designed to meet the needs of today's discerning buyer.

Type A offers 947 sq ft (one bedroom and one convertible flexi space), while Type C features 1,431 sq ft (three bedrooms).

For those looking for a premier high-rise property, the flagship development of the Molek Pine Series could be the ideal choice.

Molek Pine 4 offers resort-style living in a 37-storey low-density luxury apartment tower with built-ups ranging from 1,475 sq ft to 5,898 sq ft.

With only 260 units spread across 2.525ha of freehold land, residents can enjoy resort-style facilities such as an Onsen (Japanese spa), swimming pool, wading pool, basketball court, tennis court, badminton courts, gym, sauna, barbeque pits, children's playground and more.

Elevated comfort

The newly launched double-storey, semi-detached homes at Ponderosa Vista offer generous built-ups starting from 3,847 sq ft, set on spacious 45ft x 90ft plots.

Designed with 4+1 bedrooms and 4+1 bathrooms, the layout ensures greater privacy for each family member while allowing quality time together.

These exclusive semi-detached homes are limited to just 36 units, priced from RM1,800,000.

For those seeking larger high-rise units, Ponderosa Lakeside Luxury Apartments offer a compelling option.

This low-density, eco-conscious development features spacious units of 2,206 sq ft and 2,281sq ft, thoughtfully designed for multi-generational living.

As part of its current offering, the developer is providing subsidies on the stamp duty, loan agreement and sale and purchase agreement (SPA) legal fees, along with complimentary fittings that include two air-conditioners, a kitchen cabinet and a water heater for each unit sold.

> The developer is providing subsidies on stamp duty, loan agreement and sale and purchase agreement legal fees, along with complimentary fittings

> Berinda Properties has played a key role in transforming the city into a dynamic financial and commercial hub in the south, with numerous industry firsts

Upcoming projects

Ponderosa Vista is set to launch the final phase of its double-storey, semi-detached houses this year, featuring a total of 50 units with land sizes starting from 40ft x 100ft.

Additionally, the final collection of double-storey semi-detached homes in Taman Molek will also be rolled out in the third quarter of 2025, offering 62 units with land sizes of 35ft x 85ft, 35ft x 88ft and 40ft x 80ft.

These projects represent the developer's ongoing commitment to creating quality, sustainable living spaces that cater to a wide range of homebuyers.

Strategic developments

As with all properties, location is key. Taman Molek and Taman Ponderosa are strategically located just 12km from the Customs, Immigration and Quarantine (CIQ) complex and the future Rapid Transit System (RTS) station at Bukit Chagar in Johor Baru, making them only a 15-minute drive away.

In the vicinity of these two townships are 15 financial institutions, logistics companies, food and beverage outlets, hospitals, educational hubs, retail centres and the Ponderosa Golf and Country Resort.

These offer residents convenient access to essential services and recreational activities.

Modern living has never been more accessible.

These premium offerings reflect Berinda Properties' over 50 years of experience in the industry.

Drawing on the international expertise of its parent company, Kuok Group – known for the iconic Shangri-La hotel chain – the developer has introduced numerous industry firsts in Johor Baru, contributing to the city's transformation into a dynamic financial and commercial hub in the south.

As testament to its success, Berinda Properties has garnered several prestigious accolades over the years, including:

> PropertyGuru Asia Award Malaysia – Best Developer (Southern Malaysia) 2024;

> The BrandLaureate Property Branding Award – Mixed Use Property Development 2024;

> Green Building Index Platinum – Malaysia's 1st Residential High Rise for Molek Pine 4 Luxury Apartments;

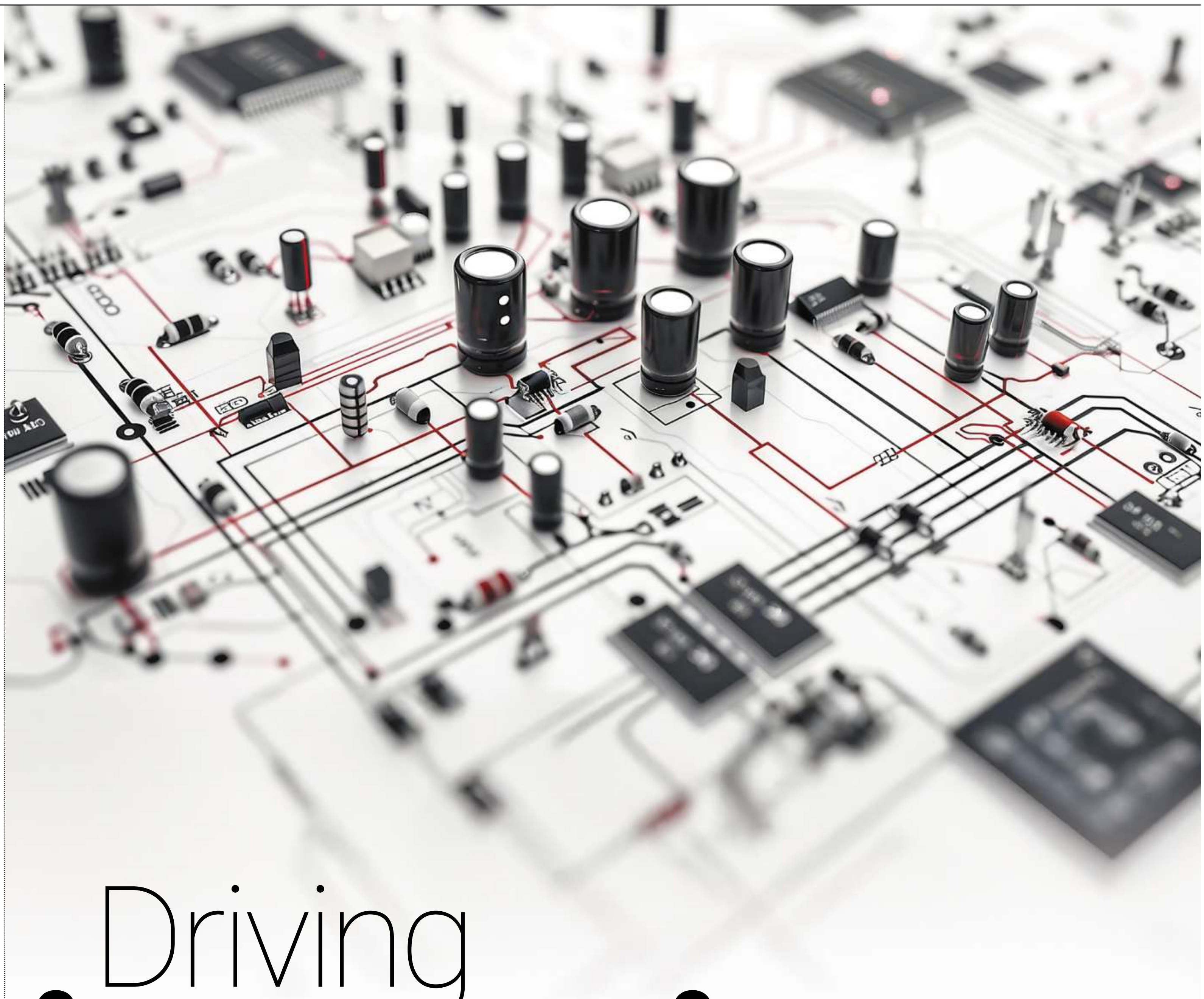
> Green Building Index Gold for Ponderosa Lakeside and Molek Pine 3;

> Best Maintained Township (Housing and Local Government Ministry); and

> Outstanding Achievement in Residential Development (Asean Association for Planning and Housing).

Green footprint: Ponderosa Lakeside luxury apartments provide a pristine, eco-friendly environment that blends elegance with sustainability.

Chair of Asean 2025
Supported by The Star



Driving innovation in regional digital and tech industries

By ELIM POON
elimpoon@thestar.com.my

THE electrical and electronics (E&E) sector is a cornerstone of Malaysia's economy, driving industrial growth.

It also makes up a significant part of the country's exports, at about 40%, and is a key source of high-value jobs in the country.

The significance of the sector is further underscored by its role in attracting foreign investment, with multinational corporations like Intel, Infineon and Texas Instruments running substantial operations in the country, particularly in hubs like Penang and Kulim.

Hence, a thriving E&E sector is key to economic growth, and a huge part of that is ensuring good environmental, social and governance (ESG) practices are in place.

As explained by QES Group Bhd managing director and president Chew Ne Weng, adhering to and staying current with up-to-date ESG standards strengthens the company's reputation and enhances its ability to serve international markets.

While sustainability practices do impact the group's profitability in the short term, Chew says it is not merely a cost but rather an investment in the future, benefitting both the business and the environment.

"For instance, achieving the Green Building Index (GBI) accreditation for our Batu Kawan plant requires using sustainable materials that are more costly than standard products.

"However, while there are some trade-offs in the immediate costs, QES believes that sustainable manufacturing initiatives contribute to long-term cost savings and competitive advantages," he says.

The automated test equipment player has two manufacturing facilities, one in Glenmarie, Shah Alam, and the other in Batu Kawan, Penang. The latter, also known as QES 2@BKIP, began construction in 2024 and is targeted to commence operations sometime around June 2025.

Chew says several key sustainability initiatives have been implemented in the new plant, including the use of sustainable materials such as low-impact durable options that help minimise the factory's ecological footprint.

Further, energy efficiency measures have been introduced, with tinting mechanisms to keep the building cooler, thereby reducing energy consumption.

The plant also features energy-efficient systems such as LED lighting and optimised heating, ventilation and air conditioning systems.

There is also the integration of renewable energy sources, mainly solar power and rainwater harvesting systems.

Additionally, waste reduction strategies have also been implemented through waste segregation systems, recycling initiatives and efforts to reduce waste sent to landfills.

■ Sustainability practices are not merely a cost but rather an investment in the future

■ ESG is a path that requires perseverance, innovation and total commitment

"We expect to see operational savings over time. These sustainable manufacturing practices will lower operational costs in the long term, improve productivity and streamline processes," Chew says.

For ViTrox Corp Bhd, president and group chief executive officer Datuk Chu Jenn Weng describes ESG as more than just a goal but rather an ongoing journey and a path that requires perseverance, innovation and total commitment.

The company says one of the key ESG challenges in the E&E industry is in navigating the rapid disruption brought by artificial intelligence (AI) while ensuring workforce readiness.

"The pace of AI advancements demands skilled talent, strong infrastructure and greater industry commitment to sustainability. Balancing innovation with long-term environmental and social goals remains a critical hurdle," it says.

To address this, ViTrox is continuously investing in AI-driven solutions and talent development by actively building workforce resilience through its ViTrox Institute of Technology in Penang.

"Regionally, we are also strengthening Malaysia's supply chain ecosystem by participating in the Advanced Technology Equipment Cluster – a strategic initiative aimed at boosting local sourcing and enhancing the global competitiveness of Asean's semiconductor industry.

"Through this collaboration, we actively recommend purchasing from local suppliers, thereby supporting and empowering homegrown businesses," the company says.

Likewise, JF Technology Bhd, a manufacturer of test contacting solutions for integrated circuit (IC) testing, is actively embedding sustainability into every facet of its manufacturing processes.

JF Technology's founder and group managing director, Datuk Foong Wei Kuong, says the company prioritises design strategies that minimise machining and material usage, aiming for streamlined production and creating durable, long-lasting components.

"For instance, our test engineering solutions business plays a pivotal role in advancing environmental sustainability.

"Specifically, we support clients in migrating product testing from single or dual-site configurations to multi-site architectures.

"This migration yields substantial reductions in the carbon footprint and energy consumption associated with IC chip product testing," he says.

Foong recognises that the synergy between technological innovation and sustainable practices is fundamental to achieving Asean's dual goals of robust economic growth and environmental preservation.

"Our commitment to continuous R&D plays a pivotal role in driving technological advancements that inherently incorporate sustainable principles," he says.

THE ASEAN POWER GRID: UNLOCKING ASEAN'S NET-ZERO POTENTIAL

FIRST proposed in the late 1990s, the Asean Power Grid (APG) was envisioned as a long-term solution to energy security and sustainability through multilateral electricity trading. Today, only seven out of the 16 planned interconnections are operational.

The APG is the key interconnection of power systems for Asean countries to trade cross-border electricity. On paper, it's an ambitious plan.

In practice, it faces considerable headwinds – not only from the lack of technology or investment, but also from fragmented regulatory regimes, uneven political will and deep-rooted concerns about sovereignty and national energy security.

Countries at different stages of economic development and energy transition often hold contrasting views.

Energy-exporting countries worry about undervaluation of their power exports. Energy-importing countries hesitate to rely on neighbours for something as strategic as electricity.

"To unlock the full potential of the APG, a coordinated, trust-based approach is needed. One that embraces regional diversity but works toward common goals," says Solarvest executive director and group chief executive officer Davis Chong.

Making the APG a reality: four strategic imperatives

Strategy 1: Harmonise regulatory and market frameworks

Asean countries must develop shared technical standards, grid codes, pricing mechanisms and regulatory norms to enable seamless cross-border power exchange.

Is it being done? Partially. The Asean Power Grid Consultative Committee (APGCC) has initiated discussions and studies on regulatory harmonisation, with some technical standards and bilateral power trading agreements in place.

This includes the ongoing policy dialogues under the Asean Plan of Action for Energy Cooperation (APAEC) Phase II (2021-2025), and a sub-programme on regional power market development.

However, some governments find it challenging to adjust their domestic electricity subsidies or tariff to align with regional trading models; some may lack the resources to participate fully.

"Asean's energy future depends on how quickly public-private trust is built.

"When industry is invited to co-create, not just implement, we see faster results and deeper regional alignment. What's missing is a structured platform for continuous engagement between governments and private developers," he said.

Strategy 2: Institutionalise public-private collaboration

Governments must establish transparent and structured platforms to involve industry consultation as early as grid planning and policy design, along with formal mechanisms that enable energy authorities and private companies to co-invest in and co-develop clean energy infrastructure.

Chong: To unlock the full potential of the Asean Power Grid, a coordinated, trust-based approach is needed.

> When industry is invited to co-create, not just implement, we see faster results and deeper regional alignment.

The Asean Power Grid was first proposed in the late 1990s to enhance energy security and sustainability via multilateral electricity trading.

Private sector players like Malaysia's Solarvest, with proven experience in cross-border solar development, are already collaborating with national and regional institutions to fast-track clean infrastructure deployment across South-East Asia.

Their participation in clean energy initiatives aligned with the Asean Interconnection Masterplan exemplifies how public-private partnerships can be effectively operationalised at scale.

With their technical expertise, financial strength and operational agility, these private companies can significantly accelerate the implementation of the Asean Power Grid.

Strategy 3: Prioritise regional grid modernisation and digitalisation

Advanced energy management systems like smart grids and AI-driven monitoring are key to balancing intermittent renewables and enabling reliable cross-border power trading.

This is an area where private companies can provide valuable solutions through innovation and operational experience.

Countries like Singapore, Malaysia and Thailand are advancing smart grid projects and integrating distributed energy systems.

However, regulatory bodies in countries like Cambodia, Myanmar or Laos may lack the resources or technical capacity to participate fully, largely due to cost and infrastructure gaps.

Smart grid technologies are capital-intensive.

Countries with limited fiscal space often struggle to invest at scale, resulting in fragmented digital platforms that complicate regional integration.

Solarvest, which has invested and brought clean energy expertise to various Asean country showcases how successful public-private partnerships that bridge the investment and capability gaps.

Strategy 4: De-risk cross-border power projects through bilateral/multilateral mechanisms

"Policy without execution leads to bottlenecks. That's where regional developers and clean energy investor like us can play a critical role to translate high-level energy plans into bankable, buildable clean infrastructure," says Chong.

The absence of centralised Asean mechanism or standardise project finance tools continues to limit project bankability.

Clean energy projects often lack long-term offtake agreements, regulatory clarity or sovereign guarantees – deter investors. Hence, feasibility studies and pilot projects such as the Asean Interconnection Masterplan Study (AIMS) III and the Laos-Thailand-Malaysia-Singapore (LTMS-PIP) pilot projects are important.

Countries are more likely to participate when risks are mitigated. Institutions like the Asian Development Bank (ADB) and the Asean Infrastructure Fund (AIF) can help de-risk early-stage cross-border power infrastructure via blended finance, sovereign guarantees or risk-sharing instruments.

Malaysia: A blueprint worth studying

Asean needs not just cross-border grids, but cross-border knowledge transfer. Malaysia offers a compelling case study of how enabling policies and private sector engagement can move the needle on clean energy.

The National Energy Transition Roadmap (NETR) outlines clear investment pathways toward a greener grid, including large-scale solar, hydrogen development and energy efficiency.

Under the Corporate Renewable Energy Supply Scheme (CRESS), it enables third-party grid access and serves as a potential catalyst for cross-border electricity trading.

Additionally, Malaysia has successfully implemented cross-border energy exports, such as to Singapore through the LTMS interconnection.

This serves as a proof-of-concept that regional energy trading is technically viable and politically achievable.

A decade of promise, need of delivery

The APG is not simply about building power lines across borders. It is about building trust, interdependence and a shared commitment to Asean's sustainable future.

For Asean to rise as a climate-resilient economic bloc, governments, industries and communities must sit at the same table as collaborators for the delivery of the APG.

About Solarvest Holdings Bhd

Solarvest is a regional clean energy infrastructure developer, with presence across eight Asia-Pacific countries, including Malaysia ("HQ"), Singapore, Vietnam, Taiwan, Indonesia, Thailand, Brunei, and the Philippines.

Recognised for its leadership in the solar industry, Solarvest has expanded its expertise to support clean energy transformation, offering a comprehensive suite of advanced solutions including Energy Storage, Energy Efficiency, Renewable Energy Certificates, and more.

To date, Solarvest has developed more than 2,000 MWp of projects across the region.

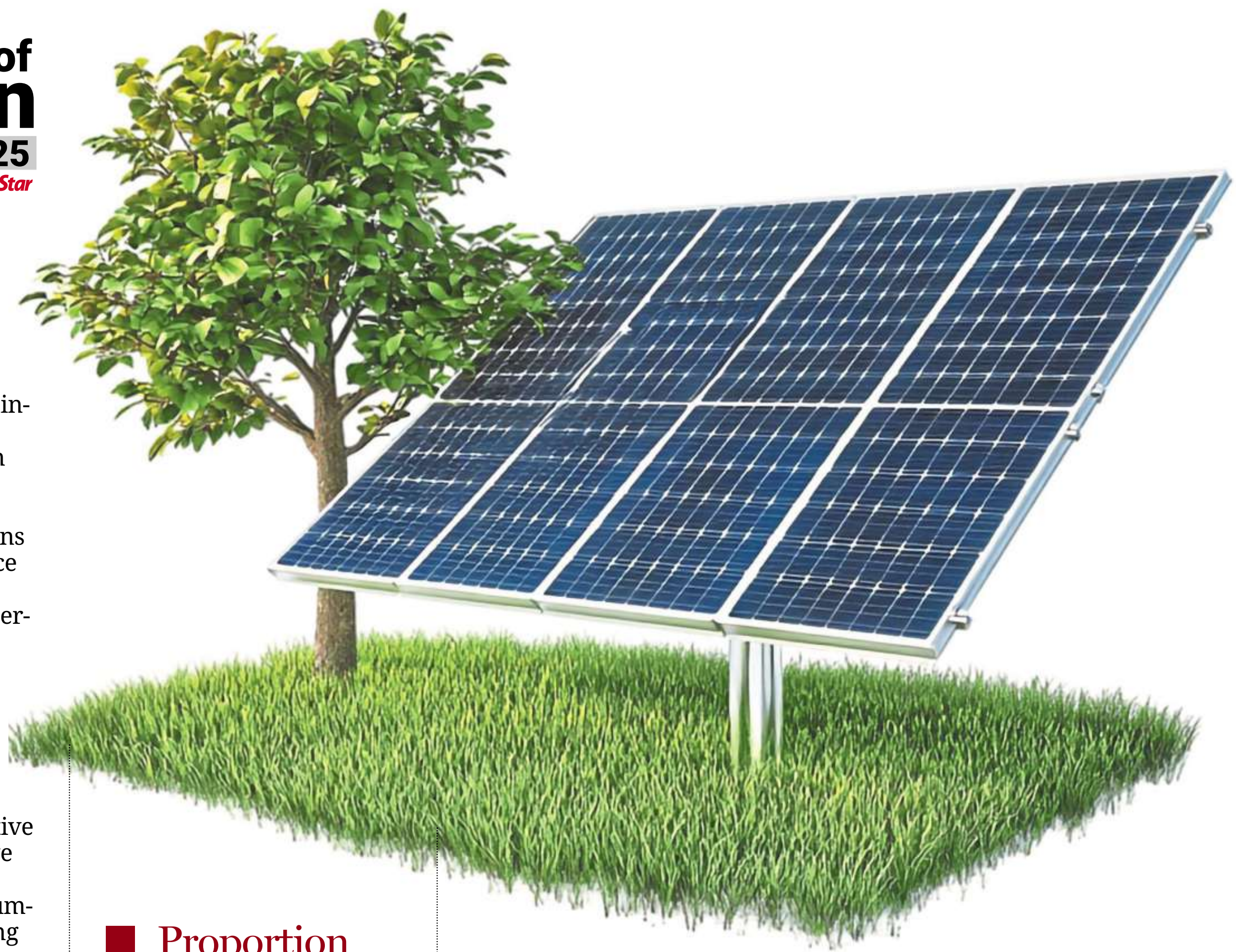
Solarvest is listed on the Main Market of Bursa Malaysia.

For more information, log on to https://solarvest.com.

Transitioning from coal to clean energy

By GURMEET KAUR
gurmeet@thestar.com.my

Chair of Asean 2025
Supported by The Star



AS South-East Asia's economy grows, fuelled by its strategic location and expanding consumer market, the transition from coal to renewable energy (RE) is underway.

Energy security remains a cornerstone of sustainable growth, essential for long-term economic competitiveness and business continuity.

In this regard, Malaysia is taking an active leadership role through a series of strategic initiatives grounded in environmental, social and governance (ESG) principles, aimed at accelerating the shift from fossil fuels to clean energy.

Beyond government-led policies (at both national and state levels), the momentum is also growing in the corporate sector, where businesses are embedding ESG principles into their operations to uphold responsible practices. At the individual level, conscious choices and sustainable habits are gaining traction, demonstrating how collective action can drive meaningful, long-term change.

One of Malaysia's key initiatives is the National Energy Transition Roadmap, which was launched in 2023. The roadmap sets ambitious targets, including enhancing RE capacity to at least 70% of power generation by 2035, up from about 25%.

Analysts estimate that these targets will entail at least 20GW of new RE until 2050, of which more than 90% is expected to come from solar. This goal is a significant step up from the previous targets of achieving 40% RE capacity by 2035.

Around the region, Indonesia aims for 23% RE in its primary energy supply by 2025 and 31% by 2050, while Vietnam plans for RE to constitute 32.3% of total primary energy consumption by 2030 and 44% by 2050.

Thailand, meanwhile, targets 30% RE in total final energy consumption by 2036.

"Malaysia's energy sector is evolving rapidly to meet sustainability demands.

"The need to adapt is driven by global shifts in technology, environmental policies and evolving consumer expectations – all of which directly influence Malaysia's energy trilemma: striking a balance between energy security (ensuring reliable power access), environmental sustainability (minimising greenhouse gas emissions) and affordability (maintaining accessible electricity for all citizens)," Nirinder Singh Johl, founder and chief executive officer of Asia Carbon XChange PLT, says.

He says investors and consumers are increasingly demanding cleaner energy solutions that are competitively priced. Meeting these expectations is crucial; not only to fulfill international commitments but also to build a resilient and inclusive energy ecosystem, he adds.

"The energy sector is gradually becoming more decentralised, shifting away from the traditional model where energy is produced solely by large utilities.

"Individuals, businesses and communities are now becoming 'prosumers' – both producing their own electricity, often through renewable sources like solar panels, and selling any excess energy back to the grid."

He points to the government's initiative like the Feed-in Tariff and various Net Energy Metering schemes, which exemplify the shift of allowing consumers to offset electricity bills with RE sources.

"RE prosumers can make meaningful progress towards their broader sustainability goals. For example, a reduced reliance on conventionally-sourced electricity enables them to lower their Scope 2 emissions, which refers to indirect greenhouse gas emissions associated with the consumption of purchased electricity," says Nirinder.

With the natural retirement of existing plants, the proportion of coal-fired power generation in Malaysia is expected to decline in the coming years.

A complete phase out is targeted by 2045. Natural gas is anticipated to act as a "transitional" fuel as the government accelerates the deployment of RE technologies, particularly solar photovoltaics (PV) and battery energy storage systems (Bess) to increase the share of clean energy in the power mix.

With upcoming tenders for the LSS5, LSS5+ and LSS6 large-scale solar programmes, analysts foresee significant growth in solar PV capacity in Peninsular Malaysia, translating into another round of multi-billion-ringgit job flow opportunities for listed companies. Meanwhile, the bidding round for the installation of Bess to third parties is likely to take place in the third quarter of 2025.

One key milestone in Malaysia's energy transition journey is enforcement of the Energy Efficiency and Conservation Act on Jan 1, 2025. It mandates that large energy consumers, selected buildings and key energy-using products adhere to minimum energy efficiency (EE) standards and implement robust energy management systems.

CIMB Securities, in a recent report, says the regulatory measure is anticipated to drive significant operational improvements and cost savings.

"With Malaysia poised to increase electricity tariffs as part of subsidy rationalisation programmes, the financial benefits of EE has become even more pronounced.

"Companies that invest in energy-efficient upgrades can effectively mitigate higher operating costs, safeguarding their profitability and positioning themselves for long-term competitive advantages over peers," CIMB Securities adds.

The research house notes that a significant portion of existing government buildings have been identified as energy inefficient, thus an urgent need for large-scale retrofitting to bring energy use closer to best practice standards.

- Proportion of coal-fired power generation to decline in the coming years
- Energy sector is gradually becoming more decentralised

Overview of key renewable energy programmes in Malaysia

RE mechanisms	Year of introduction	RE covered	Quota based?
Feed-in-Tariff (FiT)	2011	Bioenergy, geothermal, small hydro	Yes
Large-scale solar (LSS)	2016	Solar	Yes
Net energy metering (NEM)	2016	Solar (rooftop)	Yes
Self consumption (Selco)	2017	Solar (rooftop, open to ground mounted and floating solar from January 2025)	No
Corporate green power programme (CGPP)	2022	Solar	Yes
Low carbon energy generation programme (LCEG)	2024	RE other than solar	Yes
Corporate renewable energy supply scheme (Cress)	2024	Solar	No
Community renewable energy aggregation mechanism (Cream)	2025	Solar (residential rooftop)	No

Source: TA Research

The Star graphics

Climate change tops Asean's worry list

By GURMEET KAUR
gurmeet@thestar.com.my

Chair of Asean 2025
Supported by The Star

CLIMATE change is now the region's most pressing challenge, overtaking economic issues in priority, a recent regional survey reveals.

The survey, conducted by the Asean Studies Centre at the ISEAS-Yusof Ishak Institute, finds that 55.3% of respondents identified climate change and extreme weather events as their top concern, surpassing unemployment and economic recession – issues that had ranked highest for the past two years.

This shift suggests a growing public awareness of the environmental crisis and its far-reaching impact on daily life and long-term sustainability, says one industry player involved in the renewables sector.

"Countries are experiencing more floods, droughts, heatwaves, wildfires and storms, and these directly disrupt livelihoods and health. It's not surprising, then, that more people perceive climate change as the root cause of economic problems," the industry player adds.

Elaborating on the findings, Maybank Investment Bank Research (Maybank IB) says climate change is the top challenge in four of the 10 Asean countries.

"The Philippines and Vietnam, the two front-line countries in the way of strong typhoons, had 70.9% and 70.3% respondents, respectively, ranking climate change as the biggest challenge.

"This is followed by Malaysia (55%) and Thailand (54.6%), where respondents also say that climate change has impacted them," Maybank IB said in its recent environmental, social and governance (ESG) report.

It notes that the number of companies making long-term climate commitments has been increasing, as evidenced by them aligning their strategies with global climate goals in verifiable and transparent ways.

"As of end March 2025, more than 10,000 companies have committed to setting CO_2 (carbon dioxide) emissions reduction targets totalling about 19 gigatonnes (Gt) versus global emissions of 53Gt.

"There are about 3,230 companies that have either committed to setting net-zero targets or have already validated their net-zero targets with the Science Based Targets initiative (SBTi). These total about 9Gt of CO_2 emissions," Maybank IB states.

SBTi is a global organisation that helps companies set science-based greenhouse gas reduction targets.

Earlier this month, the World Bank noted that Malaysia is not lacking in climate-related policies. However, for these to be effective, climate change and its associated impacts must be integrated into public financial management systems.

This recommendation comes from Marco Larizza, a senior public sector specialist at the World Bank, following discussions between the organisation and the Malaysian government.

The World Bank is currently preparing the Climate Change Institutional Assessment for Malaysia – a diagnostic tool to evaluate how well a country's institutions, governance systems, and public financial management frameworks are aligned to support effective climate action.

The tool has already been applied in 76 countries, offering valuable comparative insights.

Malaysia's report is currently being validated and is expected to be published by end-2025.

An earlier joint report by the World Bank and Bank Negara projects that by 2030, climate change could lead to a 9% drop in production and an 8.4% decline in gross domestic product.

These losses are attributed not only to natural disasters, but also to shifting weather patterns that reduce agricultural yields.

In light of these growing risks and the need for more robust climate responses, Asean countries – including Malaysia – are increasingly turning to carbon markets as part of their climate strategies. These markets offer a way to mobilise climate finance, support emissions reductions and drive low-carbon development.

> ■ Asean countries are increasingly turning to carbon markets as part of their climate strategies

Currently, Indonesia has a carbon market for its power sector, while Vietnam plans a pilot programme in 2025.

Meanwhile, Malaysia, the Philippines and Thailand are exploring emissions trading system (ETS) frameworks as part of their climate policy toolkit, according to Maybank IB.

Beyond Asean, middle-income countries such as Brazil, India, Chile, Colombia and Turkiye have accelerated their efforts to establish ETS.

Their implementation goes beyond traditional sectors, with maritime transport, road fuel use, buildings, and waste management now included or considered for inclusion in an increasing number of jurisdictions.

In Malaysia, a voluntary carbon market was launched through the Bursa Carbon Exchange in December 2022.

While it has potential, there are hurdles due to low domestic participation and market volatility. Under Budget 2025, the government plans to introduce a carbon tax by 2026, initially targeting the iron, steel, and energy sectors. The proceeds will be used to fund decarbonisation research and technology development.

Status of Emissions Trading System (ETS) in Asean region

Indonesia	Introduced a mandatory, intensity-based ETS for the power sector in 2023. In its first phase, it covered only coal-fired power plants connected to the grid of the state-owned utility Perusahaan Listrik Negara. In 2024, the scope of the ETS expanded to cover installations with a capacity of 25MW or more, bringing an additional 47 coal-fired power plants under the scheme.
Malaysia	In the process of establishing a domestic carbon market, starting with a voluntary carbon exchange that was launched in 2022 and potentially complementing this with a domestic ETS in the future. The government is currently preparing a draft bill that would provide the legal basis for the introduction of a domestic ETS in Malaysia. It is expected to be tabled in the Malaysian parliament in 2025.
Philippines	In February 2025, the House of Representatives approved a Bill on second reading proposing the introduction of an ETS. The Bill is awaiting passage on third reading by the House of Representatives in June 2025, before being put to Senate's consideration. If adopted, the Bill would establish an ETS covering the energy, transport and waste sectors. Meanwhile, the Department of Finance is leading a technical working group to assess the feasibility of carbon pricing.
Thailand	A "Climate Change Act" is set for cabinet submission in Thailand, aiming to start the legislative process in 2025. The proposal includes an ETS, a carbon tax, and a carbon credit market. Under the current draft bill, planned allocation updates every few years will drive gradual emissions reductions.
Vietnam	A pilot ETS is set to launch by June 2025, focusing on high-emitting sectors. Full implementation is planned by 2029. The Natural Resources and Environment Ministry will issue enabling regulations throughout 2025 to support the rollout and prepare the infrastructure and capacity building activities.

Source: Maybank IB — The Star graphics

Chair of Asean 2025
Supported by The Star

Clean path: Shoppers line up at AEON checkout counters with filled carts. For the company, initiatives such as energy efficiency projects and the elimination of single-use plastic bags serve a dual purpose, allowing for reduced environmental impact.

MR DIY, AEON lead ESG shift in Asean retail sector

- Rising awareness transforms strategies across the region
- Yayasan MR DIY funds education, relief and support programmes

By SYAZWANI HASNIZAM
syazwani@thestar.com.my

ONCE a buzzword among businesses, environmental, social and governance (ESG) is now becoming a competitive necessity across South-East Asia's fast-evolving retail landscape.

The region has witnessed a marked shift in consumer expectations, with ESG considerations increasingly shaping shopping preferences and corporate strategies.

From retail and logistics to food services and manufacturing, businesses across Asean are adapting to a new reality as consumers align their purchasing power with their values.

MR DIY Group (M) Bhd says it has observed a noticeable shift in consumer expectations across Asean.

This is particularly in urban centres where sustainability is becoming a key consideration and businesses are expected to demonstrate clear commitments to ethical and environmental principles.

"This shift is particularly visible in markets like Malaysia, Singapore and Thailand, where ESG awareness is growing rapidly.

"As a regional leader, we see this as an opportunity to lead by example and meet the evolving expectations of our customers across Asean," the group says.

Aligning ESG principles with its business model, MR DIY's initiatives span from installing solar panels at distribution centres and stores to reducing plastic packaging, supporting education and enhancing employee wellbeing.

Its social arm, the Yayasan MR DIY Foundation, supports programmes in education, disaster relief, healthcare and support for underprivileged groups.

"We believe profitability and practical sustainability go hand in hand.

"Our ESG investments are designed to drive operational efficiencies, manage risk and future-proof our business," says the group, adding that while executing ESG practices does indeed require upfront investment, MR DIY stands to benefit in the long term.

Another retail giant echoes this view as well.

AEON Co (M) Bhd chief human resources officer Kasuma Satria says that aside from driving operational efficiency and risk mitigation, sustainability-driven investments drive innovation in products, services and business models – potentially creating new revenue streams and market opportunities for the group.

For AEON, many initiatives such as energy efficiency projects, solar photovoltaic installations and the elimination of single-use plastic bags serve a dual purpose, allowing for reduced environmental impact.

However, challenges remain.

Kasuma acknowledges that rising expectations for ESG compliance and disclosure, along with the complexity of managing a supply chain that includes micro, small and medium entrepreneurs with varying levels of ESG readiness, remain major hurdles.

MR DIY points to the same concerns, saying that maintaining consistency in sustainable sourcing and ethical labour practices across a broad supply chain is no mean feat.

Balancing the cost of ESG initiatives with the pricing expectations of the value retail segment is another pressing issue highlighted by the group.

To address these concerns, businesses are leaning into supplier development and operational innovation.

AEON, for instance, has launched the #AEONResponsible Suppliers Programme to build supplier resilience and improve ESG transparency.

Additionally, Kasuma explains that "this includes rolling out capacity-building initiatives, introducing ESG performance tracking systems, and ensuring that suppliers have access to the necessary resources and financing to meet sustainability objectives".

Meanwhile, MR DIY is focusing on strategic partnerships, supplier education and the use of digital tools to improve traceability.

"We foster a culture of accountability and continuous improvement, ensuring that ESG is not a standalone initiative but an integrated part of our business strategy," the group says.

Looking ahead, both companies are optimistic about ESG as a strategic growth area in Asean.

Furthermore, AEON sees opportunities across the region, particularly in markets such as Thailand, Cambodia and Vietnam.

MR DIY, on the other hand, is betting on innovation in circular economy models, sustainable packaging and inclusive employment.

The group notes: "As awareness and regulatory standards rise across the region, we believe the companies that lead with purpose and transparency will earn long-term loyalty and competitive advantage."

Ultimately, ESG is no longer a "nice to have" concept in the Asean consumer market; it is a business imperative.

As regulatory frameworks tighten and consumer consciousness rises, the companies and markets that will thrive are those that integrate ESG deep into their value chain – prioritising not just profits, but people and the planet.

New generation of buyers seek brands with strong values

By SYAZWANI HASNIZAM
syazwani@thestar.com.my

MALAYSIAN shoppers today aren't just filling a basket – they are making a statement.

Whether it is checking for eco-labels, supporting local causes or simply refusing a plastic bag, sustainability is fast becoming the new norm in Malaysian retail behaviour, and is not just a fringe trend.

Retailers are now paying attention.

Both MR DIY Group (M) Bhd and AEON Co (M) Bhd report a clear shift in consumer sentiment, especially among younger, urban shoppers who are more informed and intentional about where they spend.

"We have seen encouraging interest from younger consumers.

"They are more likely to notice whether a product is eco-friendly or whether a brand is doing something good for the community," MR DIY says.

At AEON, behavioural shifts are becoming more visible at store level.

"Our 'Say No to Plastic Bags' campaign has changed how people shop.

"Many customers now come prepared with reusable bags – it has become a habit," says AEON chief human resources officer Kasuma Satria.

AEON noted that while it may seem like a small change, it reflects how shoppers are gradually embracing more responsible consumption.

Beyond shopping bags, customers are also showing greater interest in ethically sourced products.

Hence, this next wave of shoppers aren't necessarily affluent, but they are informed.

Social media and digital platforms have made it easier for Malaysians to learn about sustainability – and to hold brands accountable.

MR DIY shares that "social media engagement also shows higher positive sentiment when we share our community and sustainability initiatives," highlighting the impact of communicating environmental, social and governance (ESG) efforts to customers.

Over time, what begins as a niche preference is becoming a mainstream expectation.

This new wave of consumers seek not only good value, but also alignment with their principles.

As MR DIY puts it, "It's about creating long-term value, not just for shareholders but for customers who care about the bigger picture."

The era of ESG-driven shoppers is here.

This shift is not a distant prospect but is already actively shaping the Malaysian retail landscape in its looks, sounds and sells.

And for retailers, the brands that speak this new language of values may earn not just customer loyalty, but their trust.

Chair of Asean 2025
Supported by The Star

Digital inclusion amid cybersecurity concerns

By KIRENNESH NAIR
kirennesh@thestar.com.my

HOME to about 700 million people, Asean is one of the most vibrant and diverse economic blocs in the world.

At one end of the spectrum are countries like Singapore and Malaysia, where Internet penetration is close to 100%, while the other are nations such as Myanmar and Laos, where less than 70% population is online – reflecting a stark digital divide across the region.

As Asean pushes for deeper digital integration and economic growth, it faces a dual challenge – expanding connectivity while ensuring environmental and social sustainability.

From rural broadband networks to the race toward net-zero emissions, Asean's digital future is being built with both ambition and responsibility.

At the heart of these advancements are the region's connectivity enablers – telecom operators and digital infrastructure providers that are expanding access while embedding sustainability into their operations.

Axiata Group

Axiata Group Bhd, a digital telco operator, infrastructure provider and digital services company, is committed to bridging the digital divide with environmental responsibility in mind.

Serving over 175 million subscribers across not just Asean but Asia, Axiata focuses on expanding broadband access to underserved and rural communities, enabling connectivity for schools, healthcare providers and remote populations.

All of these efforts are driven by a strong commitment to environmental, social and governance (ESG) principles, according to its group chief executive officer Vivek Sood.

"We are committed to achieving net-zero emissions by 2050, with approved near-term and long-term targets from the science based targets initiative. Our decarbonisation efforts focus on reducing Scope 1 and Scope 2 emissions," says Vivek.

In 2024 alone, Vivek says Axiata recorded a 7% reduction in Scope 1 and Scope 2 emissions intensity compared to the previous year.

"Our efforts include deploying solar power at base stations, replacing generators with lithium batteries, and implementing hybrid charging systems for remote base transceiver stations. Additionally, we power telco towers with solar and hybrid renewable solutions," he notes.

As of 2024, Axiata established over 7,178 solar-powered sites, an increase of over 150 sites from 2023.

Still, energy efficiency remains a key priority for Axiata, Vivek says.

He highlights that the group continuously upgrades power systems, transitions legacy indoor sites to outdoor ones to reduce cooling needs, and

Vivek: In 2024, Axiata recorded a 7% reduction in Scope 1 and Scope 2 emissions intensity compared to the previous year.

Suresh: EdgePoint's net-zero roadmap targets a reduction in Scope 1 emissions such as solar-powered towers.

deploys solar panels to support hybrid power supply across thousands of its sites.

"In 2024, we achieved approximately an 11% reduction in network fuel energy consumption and a 29% year-on-year reduction in facility electricity consumption through continued optimisation efforts," he says.

Looking ahead, Vivek says the group is addressing supply chain decarbonisation by identifying emission sources and establishing a Scope 3 baseline.

"Using a globally recognised methodology, we enhance supplier engagement to improve climate management and reduce emissions across our value chain," he says.

Beyond environmental goals, Vivek says Axiata is committed to creating meaningful social impact.

"We harness the power of technology to create meaningful social impact – expanding access to connectivity, education, healthcare and digital services.

"By bridging the digital divide, we empower individuals and communities to participate fully in the digital economy and improve their quality of life."

As of the end of 2024, Vivek says the group's social initiatives had made a tangible impact, reaching nearly 26.8 million people.

Of these, 6.7 million benefitted from education initiatives, 19.2 million from healthcare and 880,000 from financial services.

Building on the commitment to social inclusion, Vivek says Axiata also addresses affordability and accessibility through Boost, its regional financial technology (fintech) arm and digital bank.

"Efforts are focused on practical and accessible fintech and digital banking solutions that empower consumers and small businesses, and partner with local retailers to bring digital services closer to rural communities, lowering barriers to financial participation," he says.

To date, Vivek says Boost has disbursed over RM5bil in financing to MSMEs across Malaysia and Indonesia, directly enabling these businesses to digitise, scale and thrive.

As digital inclusion grows, so too does the need for robust cybersecurity.

"Protecting our users and maintaining their trust is critical as digital adoption accelerates," Vivek says.

He cites a range of emerging threats, including risks from 5G expansion, data breaches, ransomware and malware attacks, phishing scams targeting users and employees, distributed denial-of-service attempts, and vulnerabilities introduced through third-party partners.

To address these risks, Vivek says Axiata invests "heavily" in cybersecurity infrastructure such as the Axiata Cyber Fusion Centre (ACFC), which plays a central role in safeguarding users and building trust in the region's growing digital economy.

The ACFC in Malaysia serves as a central hub for proactive threat detection and analysis across the group, supported by advanced technologies and cybersecurity experts.

"We continuously evaluate the maturity and risk landscape of cybersecurity and data privacy, aligning with our Enterprise Risk Management Framework and industry best practices to ensure optimal protection and compliance," he notes.

On governance, Vivek outlines the group's comprehensive approach to anti-bribery and anti-corruption.

"To mitigate bribery and corruption risks, the Anti-Bribery and Anti-Corruption (ABAC) Plan 2024-2026 incorporates integrity surveys, effectiveness testing, and compliance maturity reviews. Annual key objectives are set based on the ABAC Plan, legal requirements and regulatory expectations, reinforcing Axiata's zero-tolerance for bribery and corruption.

"Compliance, ethics and integrity are governed through a three lines of defence model, overseen by the risk and compliance management committee, with quarterly updates to the board risk and compliance committee, and board of directors.

"In addition, the Axiata Board Investment Committee oversees all investment decisions, focusing on cash generation, return on investment and value creation."

Ultimately, Vivek says, Axiata's vision extends beyond infrastructure and access.

"Axiata aims to be more than just a connectivity provider.

"Our role is to drive comprehensive digital inclusion by expanding reliable network access, especially in rural areas, while simultaneously ensuring a safe online environment for everyone."

EdgePoint Infrastructure

EdgePoint Infrastructure, an independent telecommunications infrastructure company in South-East Asia, is advancing its ESG agenda across four key pillars – environment, operational compliance, people and community, and governance.

Its chief executive officer and founder Suresh Sidhu says the group is committed to embedding ESG principles across its operations and investments, guided by a robust internal framework that prioritises safety, inclusion, innovation and ethical practices.

"At our core, we are an inherently sustainable business. We focus on efficient site design, use of environmentally conscious materials, and the deployment of renewable energy to reduce environmental impact and build operational resilience," he says.

Suresh says EdgePoint's net-zero roadmap targets a reduction in Scope 1 emissions, primarily through initiatives such as solar-powered towers, hybrid gensets, and methanol fuel cells in Malaysia, Indonesia and the Philippines.

"To date, EdgePoint has deployed over 20 solar-powered sites, several solar hybrid gensets and methanol fuel cells," he says.

Suresh says the newest solar hybrid site in Malaysia, located along a major Klang Valley transport corridor, provides up to 100% of the energy required to operate the telecommunications equipment.

"With a 5.9- kilowatt peak (kWp) capacity, the site operates autonomously using photovoltaic (solar) energy, complemented by battery storage," he says.

> SEE NEXT PAGE

Chair of Asean 2025
Supported by The Star

Preparing Asean for a digital transformation

By KIRENNESH NAIR
kirennesh@thestar.com.my

WHILE Asean has made strides in digital inclusion and environmental, social and governance (ESG) adoption, deep-rooted disparities continue to hinder equitable progress.

With a population exceeding 690 million in 2023 – about 8.5% of the global total – South-East Asia is home to a young and increasingly connected demographic. Youth aged 15 to 35 make up nearly 32% of the region.

According to the Asean Youth Development Index by the Asean Secretariat, the region's youth population will peak by 2038 – making the years ahead critical for digital transformation.

Internet penetration reached 70% in 2023, but connectivity remains uneven.

UCSI University Malaysia associate professor of finance Liew Chee Yoong says Asean presents a "dynamic yet uneven landscape" in terms of digital inclusion and ESG practices.

"Urban centres in Singapore, Malaysia and Thailand boast advanced connectivity," the research fellow at the Centre for Market Education notes.

"However, rural regions in Cambodia, Myanmar and Indonesia continue to grapple with limited access to affordable Internet, inadequate digital literacy and a lack of localised content."

He adds that gender and age gaps persist, often leaving women and older adults behind.

To address these divides, Liew says telecommunications companies (telcos) play a pivotal role.

"Affordability remains a critical barrier," he says, suggesting subsidised data plans, device financing and public wi-fi schemes as ways to democratise access.

"Expanding infrastructure through cost-effective solutions like LTE and 5G networks and satellite technology could extend coverage to remote areas."

On the ESG front, Liew says the telco sector faces "multifaceted challenges".

"Environmentally, the sector's reliance on energy-intensive data centres and fossil fuel-powered networks contributes significantly to carbon emissions," he notes.

E-waste management is also a concern, he says, with many countries relying on informal recycling channels that pose health and environmental risks.

Socially, Liew says telcos must tackle the digital divide while upholding data privacy and ethical supply chains, especially in mineral sourcing.

He notes that governance challenges include "navigating fragmented regulations across Asean member states, combating corruption and strengthening data protection frameworks".

Liew says regulatory complexity remains a hurdle, as firms must balance compliance with innovation. He opines that harmonising data privacy laws across the region could "reduce operational hurdles while building public trust".

"Among these, however, transitioning to renewable energy and building sustainable e-waste systems stand out as urgent priorities."

On this front, Liew says environmental efforts within the sector are progressing unevenly.

"Singaporean companies, supported by government incentives, lead in adopting renewable energy for data centres, such as solar-powered facilities.

"Conversely, firms in coal-dependent countries like Indonesia and Vietnam struggle to decarbonise due to grid limitations," he explains.

To accelerate progress, Liew says telcos should invest in off-site renewable energy projects and advocate for cleaner national grids. "Embracing circular economy principles such as expanding e-waste recycling partnerships

Liew: Telcos should invest in off-site renewable energy projects and advocate for cleaner national grids.

and designing modular, repairable devices would reduce environmental footprints," he notes.

"Retrofitting legacy infrastructure with AI-driven energy management systems could also enhance efficiency, cutting costs and emissions simultaneously."

On disclosures, he says ESG reporting across the region remains inconsistent.

Liew says firms in Singapore and Malaysia frequently align with global standards such as the Global Reporting Initiative and Task Force on Climate-related Financial Disclosures, offering detailed reports on emissions and social efforts.

However, he says many regional players still publish "vague or incomplete data, particularly on Scope 3 emissions, cybersecurity practices and measurable social outcomes".

"Claims of 'improving digital access' often lack user metrics, undermining accountability," he says.

To address the lack of transparency in disclosures, Liew proposes regional collaboration to develop standardised ESG frameworks, noting this would "ensure comparability and depth".

He also calls for mandatory Scope 3 reporting, third-party audits and greater community input in social impact assessments to ensure initiatives "address real needs".

"Transparency in data governance – such as detailing cybersecurity investments – would also build stakeholder confidence," he says.

Ultimately, Liew believes Asean's path to digital equity and sustainability depends on stronger collaboration between telcos, policymakers and civil society.

"By prioritising inclusive growth, environmental accountability and transparent reporting, the region's technology sector can pave the way for a resilient and equitable digital future," he concludes.

Connectivity is crucial for fostering sustainable growth

> FROM PREVIOUS PAGE

"This deployment is expected to reduce the site's annual carbon emissions by approximately 78%, while also ensuring seamless connectivity for travellers along the highway."

Beyond environmental initiatives, Suresh says EdgePoint is also focused on uplifting communities through improved digital connectivity and inclusive infrastructure development.

"Our company's approach focuses on addressing a range of community needs from connectivity, infrastructure enhancement and economic opportunities, thereby improving the quality of life in the areas," he says.

He points to EdgePoint's Connectivity For Communities (CFC) programme – an initiative aimed at bridging the digital divide in underserved areas by delivering reliable Internet access and promoting digital inclusion – as a key example of this commitment.

"EdgePoint's local community development programmes collaborates with local authorities and communities to bring connectivity and build or improve road access in remote areas, or difficult to build sites, along with other forms of infrastructure upgrades to enhance the local populations' quality of life, support economic activity and facilitate social mobility," he says.

Suresh says in Malaysia, Indonesia and the Philippines, the CFC programme has established 12 digital classrooms in partnership with local organisations, impacting over 6,500 students.

"These efforts aim to empower students in underserved and rural areas, as well as their surrounding communities by facilitating access to online education, healthcare, banking, government services and future employment opportunities," he says.

Looking ahead, Suresh says the company aims to continue supporting the region's 5G rollout by leveraging its infrastructure portfolio, increasing co-locations and expanding shared infrastructure to enable faster network expansion while reducing environmental impact.

"We will also continue integrating energy-efficient technologies and sustainable power solutions across our sites, towards building a more connected Asean in a responsible and resource-conscious way," he says.

He notes that solar hybrid solutions are a growing focus area for EdgePoint, particularly in light of the region's equatorial climate and high levels of solar insolation.

Ultimately, Suresh says EdgePoint sees itself as more than a tower company – it aims to be a catalyst for digital inclusion and sustainable progress across Asean.

"We believe that connectivity should be a universal right, accessible to everyone regardless of location, background or circumstance, and that connectivity should be a catalyst for broader community development," he says.

"Beyond simply sustainably constructing towers, we believe that connectivity is key for fostering sustainable growth and creating a positive impact on the local communities in which we operate."

Chair of Asean 2025
Supported by The Star

Leadership key to furthering education goals

STRIKING a balance between ensuring a business is viable and at the same time, nurturing an environment that encourages learning and growth is not easy.

This is especially in Malaysia's competitive private higher education industry, where according to the Higher Education Ministry, there were a total of 388 private higher education institutions (PHEIs) in the country as of 2023, down from 437 in 2020.

PHEIs have had to face a few challenges, including the closing of borders during the Covid-19 lockdowns, as well as issues over standard and quality, with escalating costs and lack of financing being other issues that they must contend with.

While PHEIs have opened opportunities to more Malaysians and others from around Asean and the world, leadership remains key for the industry to enact the sometimes-disruptive changes to ensure academic excellence and stay on top of the issues that the environmental, social and governance (ESG) pillars strive to address.

Economist Geoffrey Williams, who has taught in Malaysia for some two decades and held senior positions in several private universities in the country, believes that there are a lot of changes needed to improve the workforce, which start from the top.

"There needs to be an improvement in approach, but this requires changes in leadership," he says, adding that academics also carry some of the responsibility.

Across Asean, the focus on preparing students for the labour market or promoting national or group identity indicators means that diversity, equity and inclusion issues are for the most part, "largely irrelevant", Williams says, pointing out that this is more reflective of leadership policy and unquestioning compliance of the faculty rather than the fault of students.

He feels that there are quite a few good administrators in Malaysian universities but feels that the corporate approach may not be fit for an academic environment. "This causes a clash which holds back performance," he says. To him, universities engage society through ensuring access to as wide a group as possible or offering pathways to the under-represented.

For the University of Nottingham Malaysia (UNM), having a diverse student and employee profile does take effort to make it work.

Since welcoming the first students nearly 25 years ago, UNM today has some 5,000 students across undergraduate and post-graduate programmes representing over 70 nationalities as well as over 600 academic and administrative employees from over 35 countries.

While a qualification from a well-known university is still top of the list, in a crowded field, Prof David FitzPatrick, UNM's provost and chief executive officer, stresses that it takes more than just academic excellence to get the best, be it students, faculty or administrators.

FitzPatrick: We ensure that our ESG values are embedded into every facet of university life.

> Students, faculty, administrators, and people across the region are searching for a value-driven experience that goes beyond surface-level achievements

"Students, faculty, administrators, and people across the region are searching for a value-driven experience that goes beyond surface-level achievements.

"Knowing this, we ensure that our ESG values are embedded into every facet of university life to resonate with current and prospective students and staff who are seeking purpose on top of prestige," he says, pointing to the integration of the Sustainability Development Goals (SDGs) into teaching through month-long teach-in sessions during the university's Sustainability Action Week, which was adopted in 2023.

The UNM academic programmes include sustainability-focused modules across disciplines – from green engineering to responsible business, which FitzPatrick says directly appeals to Gen Z students who want to make a positive impact in their careers.

As for the employees, besides the diverse nationalities represented, some 45% of senior leadership roles are held by women. According to him, UNM intentionally promotes representation and belonging among employees, with the recruitment policies designed to support equitable hiring practices, encourage diversity and have accessible pathways for people from different backgrounds.

FitzPatrick says UNM fosters inclusivity through structural initiatives that shape its culture and practices.

These initiatives include an Equality, Diversity & Inclusion committee that reports to the senior management as well as engagements such as inclusive leadership training, staff and student networks, and cultural celebrations on campus, which all contributes to a more connected and supportive community.

For students, these initiatives will help them in adapting to diverse cultures and work in a global workforce while among academic staff, this helps create an environment for dynamic research collaborations that can bring long-term value creation within and without the university.

For academic programmes, the Nottingham University Business School Malaysia together with the School of Environmental Sciences developed a new multi-disciplinary module on sustainable business practices that gives students an understanding of sustainability and ESG principles from the business and environmental perspectives. "It challenges them to think critically and develop practical solutions to real-world environmental and social issues, building skills they can apply in future careers and communities," FitzPatrick says.

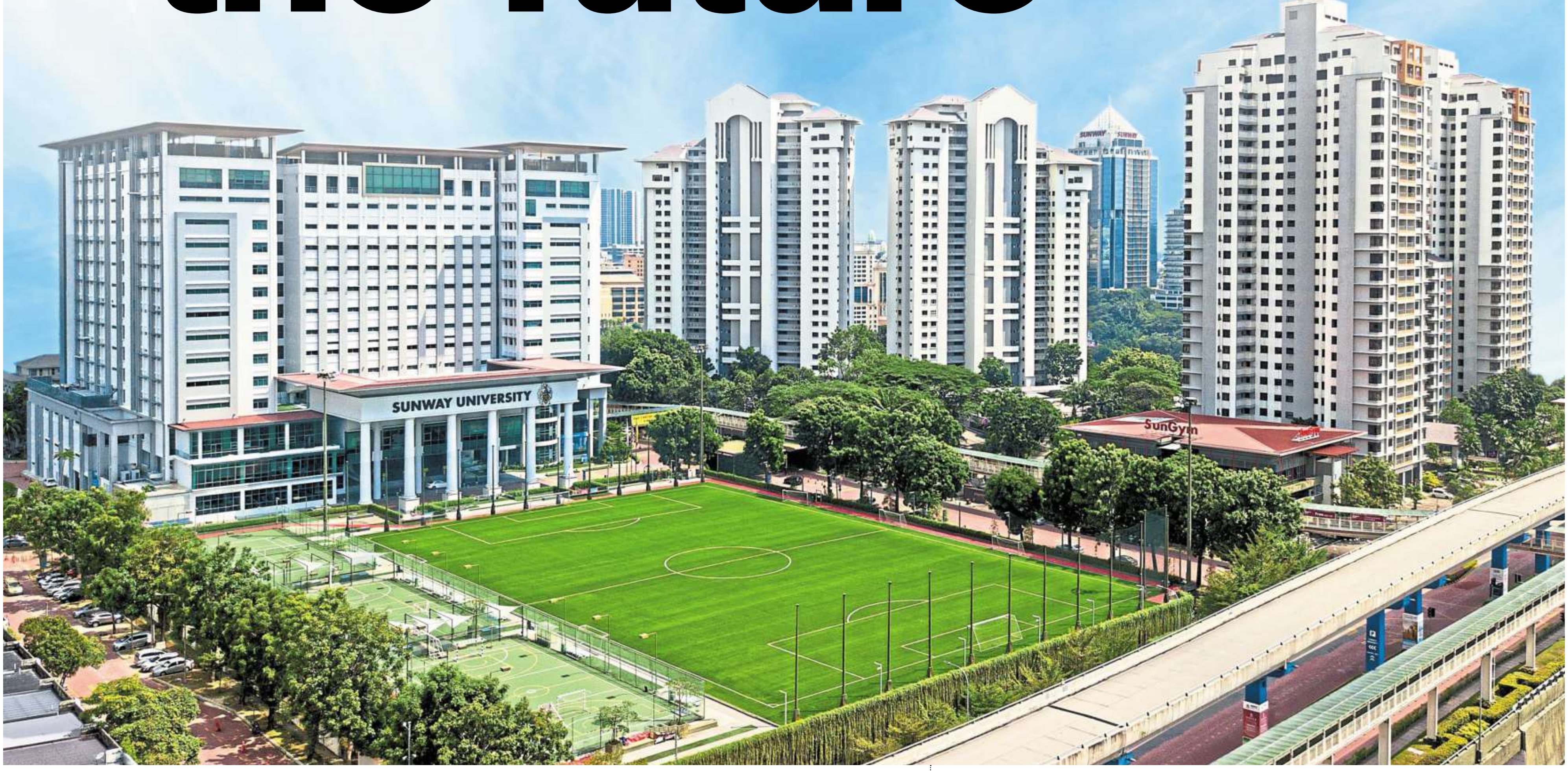
Students are also challenged to think how companies can develop effective strategies to address sustainability challenges, such as climate change, not just as ethical obligations but as drivers of long-term business success.

There are differing views and opinions about the role of tertiary education and how they engage with the wider world, this is especially true of private higher education where PHEIs, besides having to offer courses relevant to the times, which includes embedding sustainability and ESG concerns into the academic curriculum, also must contend with finance and funding.

Besides engagements with students and employees, FitzPatrick shares that the university runs an education and advocacy initiative to improve access to education for the orang asli community in Kelantan in partnership with the Institute for Democracy and Economic Affairs.

These are among the handful of initiatives that he feels help shape well-rounded graduates and better prepare them in addressing future problems and challenges.

Fostering students mindset for the future



Top choice: Being an entrepreneurial university, Sunway University future-proofs students for the job market.

By SIBRANDES POPPEMA and CHAI LAY CHING

Chair of Asean 2025 Supported by The Star

IN an age of disruption, where artificial intelligence (AI) reshapes the nature of work and planetary boundaries are under increasing pressure, education must evolve.

The future requires fostering the mindset needed to build an inclusive and resilient Asean.

To future-proof our graduates, Sunway University has developed a Guiding Framework and Institutional Policy on Generative AI in Teaching and Learning, serving as a strategic blueprint to integrate AI across our curriculum and education ecosystem in a structured and coherent manner.

All students undertake a compulsory Fundamentals in AI course, with AI literacy embedded across all disciplines to ensure graduates can use these tools creatively, ethically and responsibly.

Complementing this, Sunway is introducing undergraduate and postgraduate programmes in AI to develop homegrown talent capable of leading Asean's digital and ethical transformation.

This also extends to the rapidly increasing number of international students from Asean countries.

The attraction for these students is a high-quality educational offering that enables them to obtain Malaysian degrees as well as UK or American degrees at an affordable cost through our collaborations with Lancaster University in the United Kingdom and Arizona State University in the United States, both universities with similar environmental, social and governance (ESG) values as Sunway University.

Beyond technology, we recognise that sustainable development and social equity are equally critical.

We embed career-guided pathways, real-world industry immersion, and mentorship into every student journey, preparing graduates to be employable and thrive in a fast-evolving world while making meaningful contributions.

All students at Sunway University engage in core courses like Ethics and Sustainable Development, Community Service for Planetary Health, and Entrepreneurial Mindset and Skills.

> All students undertake a compulsory Fundamentals in AI course, with AI literacy embedded across all disciplines to ensure graduates can use these tools creatively, ethically, and responsibly.

Chai: Sunway University embeds career-guided pathways for its students.

Poppema: We recognise that sustainable development and social equity are equally critical.

Asean should move beyond producing a mere workforce, towards nurturing purpose-driven leaders who care for society, lead with values, and drive inclusive, sustainable transformation.

This shift is vital if the region is to fully embrace ESG principles and unlock long-term fair growth.

Universities must anchor this transformation, not just as knowledge providers, but as ecosystem shapers, nurturing ethical, socially conscious and sustainability-driven graduates.

At Sunway University, our mission aligns deeply with the Sustainable Development Goals.

We believe education must be holistic, empowering students with subject knowledge, critical digital competencies, strong core values, essential soft skills, and a sense of purpose to act for people, the planet and shared prosperity.

We are ready to partner across borders, sectors and communities.

Together, we can ensure that Asean's rise is not only economically vibrant – but ethically grounded and sustainably led.

Prof Sibrandes Poppema is president and vice-chancellor at Sunway University and Prof Chai Lay Ching is pro vice-chancellor – Education, Employability and Alumni at Sunway University.

Transportation sector leads carbon emission reduction

By GANESHWARAN KANA
ganeshwaran@thestar.com.my

THE transportation industry accounts for nearly one-quarter of the world's energy-related carbon emissions.

The quest to limit global warming to within 2°C above pre-industrial levels will not be possible without the transportation industry's commitment to reduce its carbon footprint.

Transportation and logistics-related players in Malaysia are actively transitioning towards sustainable operations, and more companies are following suit.

One of the country's major courier players, GDEX Bhd, is gradually moving away from fossil fuels by deploying electric forklifts for warehouse and auto-sorting hub operations.

The group, whose operations are partly powered by green energy, is also in the midst of a pilot project for the use of electric trucks for last-mile deliveries.

GDEX is also currently drafting a Green Procurement Policy to reduce its environmental footprint, improve efficiency and build a more sustainable and future-proof business.

"Apart from that, we have rolled out green plastic flyers – also known as mailer bags – in our operations," managing director and group chief executive officer Teong Teck Lean says.

With these green flyers, the amount of plastic waste directed to landfills is reduced and energy consumption is lowered.

Teong highlights that GDEX remains "prudent" as it invests in green solutions.

"We focus on balancing profit and environmental responsibility simultaneously.

"As such, we will focus on prioritised investments in proven, scalable solutions that will be implemented in phases to achieve clear cost savings and avoid heavy commitments to rapidly changing technologies."

Westports Holdings Bhd, the second busiest port in South-East Asia, says it is only investing in sustainability measures that have a reasonable return on investment.

"As such, it will not be a drag on finances and, in some cases, might actually improve them instead," says Westports executive chairman Datuk Ruben Emir Gnanalingam.

Westports aims to achieve net-zero carbon emissions by 2050 and requires its vendors to demonstrate a commitment to sustainability by 2030.

- Westports embraces mangroves as a component of sustainable port management

- GDEX deploys electric forklifts for warehouse and auto-sorting hub operations

- MAG has conducted 20 SAF demonstration flights since 2021

Chair of Asean 2025
Supported by The Star

Recently, it substantially improved carbon emissions reporting and energy and water monitoring processes and made significant inroads into calculating its Scope 3 emissions.

"Westports includes environmental elements in contractual clauses – approximately 30% – and supplier training," the group mentions in its 2023 sustainability report.

"Initiatives such as the Land and Biodiversity Policy, mangrove planting and the introduction of autonomous Q-Truck electric Terminal Tractors (TTs) demonstrate our commitment to environmental sustainability."

Westports embraces mangroves as a vital component of sustainable port management.

Mangroves in port areas reduce emissions by sequestering carbon, filtering pollutants, stabilising shorelines, supporting biodiversity and absorbing nutrient runoff.

Up to 2023, Westports planted 9,636 mangroves, bringing the total to a range of six different mangrove species since the company's initial project in 2015.

The port operator is also gradually transitioning to electrifying its electric terminal trucks and rubber-tired gantry (RTG) cranes while incorporating more renewable energy to power its operations.

Amid its transition to electricity-powered vehicles and equipment, Westports also has a biodiesel programme in place.

All TTs, the newer RTG models, and all container yard equipment use B7 biodiesel, comprising 7% methyl ester and 93% petroleum diesel.

B7 lowers the carbon footprint, curbs greenhouse gases, decreases particulate matter and improves engine performance.

Like Westports, Malaysia Aviation Group Bhd (MAG) also deploys biodiesel in its operations, or to be exact, sustainable aviation fuel (SAF).

MAG is the parent company of Malaysia Airlines.

In response to an enquiry, MAG says it signed a landmark SAF Offtake Agreement with PETRONAS Dagangan Bhd in 2023.

"MAG has also conducted 20 SAF demonstration flights since 2021. We are currently using SAF for our flights from London and Paris, which started in January 2025."

The aviation group has also signed a memorandum of understanding with FatHopes Energy to explore the potential of converting used cooking oil into SAF.

The adoption of SAF is one of the four levers in MAG's decarbonisation strategy.

The other levers are operational efficiency, fleet modernisation and market-based measures or carbon offsetting.

Under operational efficiency, MAG has implemented fuel-saving measures such as using idle reverse thrust during landings and single-engine taxiing to reduce fuel consumption.

In 2023, the emissions reduction was equivalent to approximately 76 million kg of carbon dioxide.

Beyond these efforts, MAG also focuses on reducing single-use plastics and food waste in-flight, alongside achieving sustainable procurement practices.

It prioritises vendors who offer recyclable, compostable or biodegradable materials.

"At MAG, we are currently evaluating the overall financial impact of our sustainability measures.

"Concurrently, we are developing an environmental, social and governance mid-term strategy roadmap, with the key objective to provide clarity on MAG's key strategic approach on sustainability focus areas," MAG says.

Promoting **travel** while protecting the environment

By LYDIA NATHAN
lydia.sheena@thestar.com.my

A SUCCESSFUL tourism and hospitality industry is a powerful tool that can spur economic growth and increase revenue for a country.

Balancing the growth with sustainability and protecting the environment are the other parts of it, as nations look for more means to capitalise on their God-given gifts of nature.

The race for both is often seen as conflicting goals because the pursuit comes at the cost of environmental degradation, resource depletion and climate change.

Malaysia Carbon Market Association president Renard Siew says in Malaysia, there has been a growing recognition that the natural environment is not just a backdrop for tourism, but also a key asset that requires much protection.

He says the local government has made strides through various initiatives like promoting ecotourism, marine park protection and community-based projects.

"Sustainable resorts, low-impact nature trails and coral reef restoration efforts are an encouraging sign that Malaysia understands the value of preserving its natural capital while still benefiting from tourism's economic contributions," he says.

Siew explains that sustainable tourism does not only encapsulate the idea of doing good, but it is fast becoming good for businesses.

A good example would be the use of high-quality carbon offsets, the promotion of renewable energy in hotels and eco-certifications.

Renewable energy can lower long-term operational costs, while carbon offsets and eco-lodges can command premium pricing from environmentally conscious tourists.

These, he says, are not only environmental gestures but also market differentiators.

"Travellers are more discerning, seeking out eco-friendly options and rewarding operators who demonstrate genuine commitment to sustainability.

"The challenge lies in the initial capital investment, but the long-term returns both financially and reputationally are increasingly hard to ignore," Siew adds.

A standout example according to him is the Heart of Borneo (HoB) initiative, which aims to conserve one of the largest remaining expanses of tropical rainforest in the world, involving Malaysia, Brunei and Indonesia.

The HoB covers over 220,000 sq km of ecologically rich forest, supporting endangered species like the Bornean orangutan and the pygmy elephant.

How is it managed well?

Siew says minimising environmental impact while providing economic benefits to local communities are vital aspects of tourism.

So, offerings like guided rainforest treks and wildlife observation tours are made available for tourists because they could also contribute to the livelihood of the people. "The HoB showcases how tourism, when thoughtfully managed, can serve as both a conservation tool and an economic driver," he says.

Amlir: The economic aspect is not the aim but merely a tool to guarantee social well-being, not sacrifice it.

Siew: Sustainable resorts, low-impact nature trails and coral reef restoration efforts are an encouraging sign.

Manoharan: Projects like homestays and local guide programmes will involve the local population in the tourism value chain.

■ Ecotourism, marine park protection and community-based projects vital

■ Renewable energy can lower long-term operational costs

If we were to compare Malaysia with the rest of the region, where do we stand?

EkoKnights president Amlir Ayat says the awareness on this aspect in Malaysia is rising, albeit quite slowly due to a lack of deeper understanding of the importance of sustainable tourism.

He says the act of balancing both goals stresses on the need to design and mould it towards the well-being of the present and future generations.

"The economic aspect is not the aim but merely a tool to guarantee social well-being, not sacrifice it. In many examples, developments in tourism are losing the social and environmental assets on which they depend on due to the overemphasis on economic profits," Amlir says.

For the rest of the region, Amlir states that Thailand and Indonesia seem to be on the right path due to their intensive work on sustainable tourism education.

While Malaysia may have a little more to learn, it is on the right track, he says.

"Malaysia has some good showcases. For example, the ecotourism activities in Danum Valley with a good amount of focus on ecotourism.

"This is assumed to be the outcome of well-planned and executed holistic planning and education which emphasises grassroot or target community participation at every level of the project," he adds.

Siew agrees, saying Thailand has pioneered marine tourism restrictions, closing parts of islands like Maya Bay to allow for ecological recovery.

Indonesia has introduced a tourist levy, particularly for Bali whereby each tourist pays around US$10 to fund conservation and cultural preservation projects.

"The Philippines' temporary closure and rehabilitation of Boracay is a bold example of how governments can take decisive action when tourism threatens environmental balance," Siew says.

Meanwhile, Tourism Malaysia says its national tourism policy 2020-2030 serves as a framework for the transformation of the industry.

Director-general Datuk Manoharan Periasamy says some of the strategies used to grow tourism while minimising ecological harm include encouraging visitors to explore Malaysia's natural landscapes like national parks, wildlife sanctuaries and nature reserves with strict sustainability guidelines.

The agency has engaged local communities and trained residents in sustainable practices.

"Projects like homestays and local guide programmes will involve the local population in the tourism value chain to provide economic benefits and enrich tourist experiences via authentic cultural interactions," he says.

Additionally, the national ecotourism plan supports green tourism businesses by offering incentives for eco-friendly practices.

"There are conservation fees, designated protected zones, an environmental, social and governance standard for hotels as well as homestay experiences that allow tourists to engage with the local communities," he adds.

Chair of Asean 2025

Supported by The Star

Running hospitals sustainably

By DANIEL KHOO
danielkhoo@thestar.com.my

THE provision of private healthcare services is a resource-intensive affair, thus ensuring sustainability in this sector is key for greater environmental, social and governance (ESG) compliance.

Improving the ESG front, while it may sound tedious at first, will benefit private hospital groups in the longer run as well.

This is evident and seen among the two biggest public-listed private hospital groups in Malaysia – IHH Healthcare Bhd and KPJ Healthcare Bhd as they are starting to reap manifold gains from some of their ESG-related initiatives.

Both groups have noted of greater cost efficiencies, whether intended or not as they push forward by placing a high priority on ESG compliance amid greater regulatory requirements.

IHH, which owns some 18 hospitals in Malaysia, notes that ESG-driven initiatives can contribute to cost efficiencies in the areas of energy, waste and water management.

IHH's group chief sustainability officer Yasemin Tecmen Stubbe shares some of these initiatives include the group's decision to invest in energy-efficient technologies like light-emitting diode (LED) lighting, solar panels, and smart chiller systems.

"This has led to lower electricity consumption and operational expenses. In addition, sustainable procurement practices help reduce medical supply waste and optimise resource usage. While water conservation initiatives, such as recycled water systems, have further helped in reducing hospital utility bills while promoting sustainability," Yasemin says.

Apart from this, the IHH group is also bracing for climate change impacts across its operations globally, which can cause unanticipated high one-off costs.

In December 2023, a hospital under the group, Gleneagles HealthCity Chennai, faced severe flooding and infrastructure damage following torrential rain that lasted over 20 hours, caused by Cyclone Michaung.

"Since then, we have enhanced our flood risk mitigation strategies – from erecting flood walls and removable flood barriers at key entrances to upgrading sump pump capacity for faster drainage – and were awarded the DRI International Award, validating our commitment to continuous, safe and effective healthcare services even in times of crisis," Yasemin says.

IHH has started analysing future climate scenarios to identify physical risks such as flooding, extreme heat, extreme rainfall and water stress, all of which could potentially impact its ability to deliver care as well as its patients' ability to access care.

Chin: Embarking on ESG initiatives has helped the group reduce long-term costs by improving efficiency.

■ Sustainable procurement practices help reduce medical supply waste and optimise resource usage

"These analyses will help us develop proactive plans to respond to evolving climate conditions," she adds.

IHH also says it recognises that investing in its own people is key for long-term sustainability.

Yasemin says the group sees improvement in staff retention rates and ultimately reducing headcount turnover by enhancing workforce training, employee well-being programmes and professional development opportunities.

"A more engaged, well-trained workforce leads to lower recruitment costs, fewer medical errors and improved patient care efficiency," she notes.

Meanwhile, KPJ's president and managing director Chin Keat Chyuan says embarking on ESG initiatives has helped the group reduce long-term costs by improving efficiency across its operations.

Among its initiatives on this front include deploying energy-saving measures such as LED retrofitting, solar panels and smart building systems which help reduce electricity usage.

"Also water conservation efforts, including low-flow fixtures and rainwater harvesting, helps us lower utility bills. Waste segregation at source has also reduced clinical waste volumes and disposal costs," Chin says.

Meanwhile, KPJ's other efforts on this front are to digitise paper-based processes, which help improve workflow and reduce administrative workload.

"At the same time, telemedicine helps reduce the need for physical infrastructure and travel, lowering carbon emissions and operational expenses.

"Artificial intelligence-driven models also support better inventory planning, avoiding unnecessary purchases and reducing waste," Chin says.

Moving forward, Chin says KPJ would like to place greater emphasis on both environmental and social impact as part of its ESG strategy.

On the environmental front, KPJ's focus covers expanding green-certified hospital infrastructure, enhancing energy and water efficiency; and supporting the circular economy.

"This includes the adoption of solar energy, EV charging facilities, rainwater harvesting systems and improved clinical waste segregation across our hospital network," Chin says.

Similarly, IHH's Yasemin says the group is accelerating the deployment of renewable energy sources across its operations globally.

"Rooftop solar systems are already installed at 10 hospitals in Malaysia and Gleneagles Hong Kong, and six additional Malaysian hospitals are scheduled for solar installation by the end of 2025. Additionally, in 2024 we signed a contract to implement a large-scale solar farm for our Turkiye operations, which is expected to be ready in 2025, covering up to 80% of its annual energy needs," she says.

On the social front, IHH acknowledges its people are instrumental in providing quality care to its patients and it will continue to invest in this asset.

"We also continue to champion healthcare accessibility through corporate responsibility initiatives like the Life Renewed Programme, which provides free cancer treatment to under-served communities through an ongoing corporate responsibility partnership with the Health Ministry.

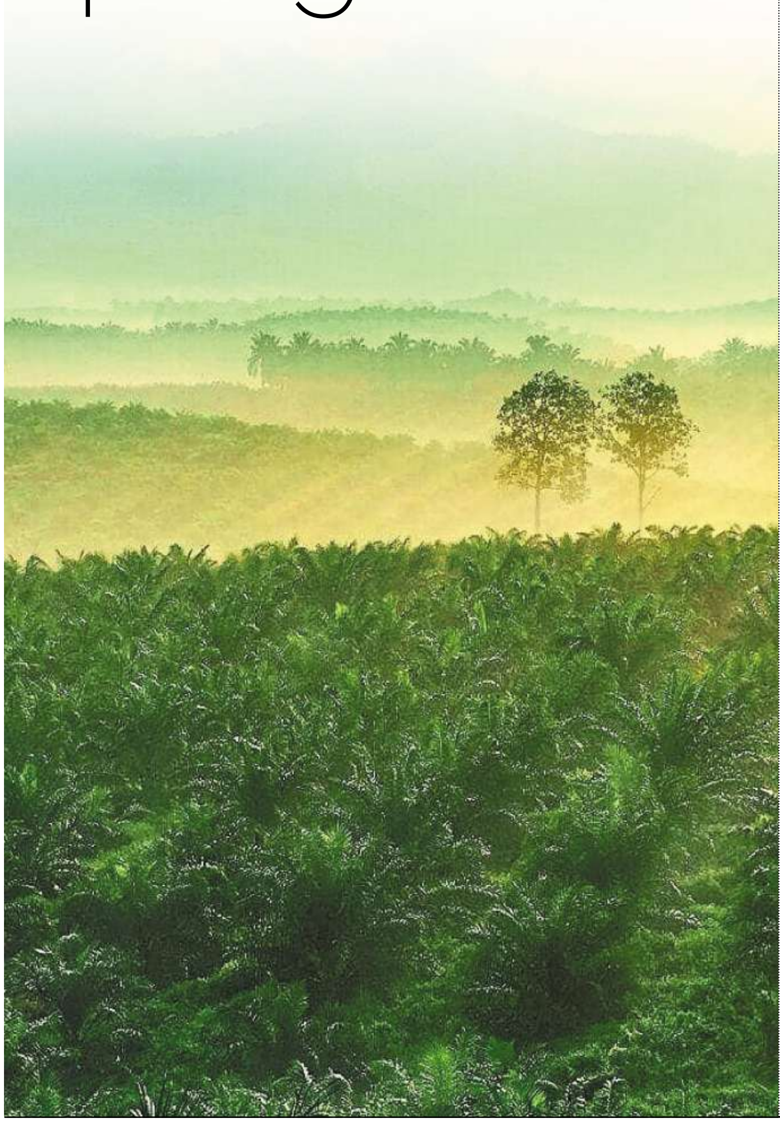
"Community outreach remains a key pillar, with us actively participating in disaster relief efforts, providing medical aid to flood victims, and supporting healthcare programmes for vulnerable populations," she says.

For KPJ on the social front, Chin says the group remains committed to equitable access to healthcare.

Its initiatives on this front are through the Klinik Waqaf An-Nur and its mobile clinics which continue to play a vital role in reaching under-served communities, while it also scales up its health awareness and outreach programmes, Chin says.

"Internally, we are focused on workplace safety, employee well-being and providing equal opportunities for career development across all levels of the organisation," he adds.

Plantation giants drive RE and ESG progress



By BHUPINDER SINGH
bhupinder@thestar.com.my

Chair of Asean 2025
Supported by The Star

MALAYSIA'S plantation companies continue to have environmental, social and governance (ESG) frameworks that align with stakeholder expectations and global trends.

For instance, IOI Corp Bhd's ESG strategic push over the next five years will focus on advancing its Fourth Business Strategic Priority, which centres on climate action.

This includes accelerating its decarbonisation pathway and ensuring a just transition.

"We recognise that addressing climate change is both an environmental necessity and a business imperative, and we are committed to making measurable progress in this area," the company says.

Its peer, SD Guthrie Bhd's ESG focus is anchored on the newly launched "Beyond Zero" Framework, which supports the group's business strategy and long-term value creation.

Built on three pillars – Zero, Restore and Transform – the framework outlines the integrated plantation company's aim to not only mitigate negative environmental and social impacts but also generate meaningful, positive outcomes for people and the planet.

One of its key priorities under the "Beyond Zero" framework is to reduce the group's negative impact on people and nature by achieving a fully traceable and deforestation-free supply chain by 2025 while upholding alignment with relevant international frameworks.

It will include restoring and conserving 100,000ha of land by 2030, building on over 45,000ha already set aside.

Another target SD Guthrie has in 2025 is developing a regenerative agriculture framework for palm oil with pilot implementation by 2028.

The planter wants to help improve the livelihoods of 50,000 smallholders by 2035 with programmes designed to enhance yields, increase incomes and support certification for access to global markets.

"Beyond Zero underpins SD Guthrie's science-based targets initiative (SBTi)-validated net-zero targets, and we are the first palm oil company in the world to have its net-zero targets validated by the SBTi," the company says.

To appease shareholders who may want to see some monetary returns from the ESG undertakings, plantation companies have found the renewable energy (RE) space an option that matches their ESG goals and, at the same time, receive some economic benefits.

SD Guthrie has moved in a big way into the power generation business, fuelled by its investment in solar energy and biogas projects.

Its RE initiatives are a significant part of the Zero pillar in its "Beyond Zero" framework.

"There are two key pillars of our RE initiatives, one of which is about achieving circularity in our operations, more specifically in our case, biogas plants and the other is solar.

"Our investment in RE, particularly biogas plants, is not new, given our track record of meeting our net-zero targets.

"We are continuing to install biogas plants in our operations to tackle methane emissions from palm oil mill effluent (Pome) and our biogas portfolio is a key component in our target to achieve a 42% reduction in Scope 1 and Scope 2 Energy and Industrial carbon emissions by 2030," it says.

■ SD Guthrie to pilot regenerative palm oil by 2028

As of financial year 2024, SD Guthrie operated 19 biogas plants across Malaysia, Indonesia and Papua New Guinea with a total capacity of 28.57MWe.

It aims to scale this to 46 plants by 2030.

In May last year, the group announced the development of solar farms as one of two new business verticals and a strategy to create diversified and sustainable revenue streams while leveraging its extensive landbank.

Currently, 38% of aggregated land required for both the Large Scale Solar (LSS) 4 and Corporate Green Power Programme or CGPP is on land leased from SD Guthrie.

The group is in the midst of developing its own 15MW solar asset in Bukit Selarong, Kedah under the CGPP, which is expected to be commissioned by the end of the year.

Since 2021, SD Guthrie has also actively implemented solar photovoltaic systems for its own captive use wherever feasible across its operations, including off-grid solar solutions equipped with battery energy storage systems.

The National Energy Transition Roadmap has opened the door for companies like SD Guthrie to consider the land-intensive solar business, where it has repositioned itself to explore pathways towards a 1GW aspiration for this new business vertical.

"We are currently reviewing various opportunities in this space, seeking potential opportunities and partnerships to expand our involvement in LSS and Corporate Renewable Energy Supply Scheme moving beyond land leasing for solar energy," the planter says.

IOI Corp, meanwhile, said RE is a key pillar of its decarbonisation roadmap towards achieving Net Zero and views the space as a strategic opportunity to reduce greenhouse gas (GHG) emissions, minimise reliance on fossil fuels, and manage energy costs and availability.

"One of our core initiatives involves capturing methane from Pome, which significantly reduces methane emissions – a potent GHG.

"The captured methane is then converted into energy, allowing us to operate several mills and estates independently of the national energy grid.

"This not only enhances energy self-sufficiency but also supports our broader circular economy strategy, better known as the '7Rs of Circularity'", the company says.

Hence, the RE investments by IOI Corp and SD Guthrie and other plantation groups in the country are fully aligned with their respective ESG commitments, particularly the zero emissions goal to significantly reduce GHG emissions and contribute to a cleaner, low-carbon Malaysian economy.

IOI Corp, SD Guthrie stay committed to sustainable growth

ENVIRONMENTAL, social and governance (ESG) is now in the limelight for the wrong reasons as US President Donald Trump withdraws his country from climate agreements and pressures businesses and their stakeholders to do away with or at least downgrade their ESG frameworks, goals and investments.

Local planters shareholders could very well be drawn in by the rhetoric as well.

Asked if the companies have seen any let-up in pressure from their clients and stakeholders on ESG-related concerns, SD Guthrie and IOI Corp Bhd say that has not been the case.

Even so, the companies are steadfast in their respective ESG journeys.

"Our commitment to sustainability and the ESG component is firmly embedded within our operations.

"While we do monitor global trends and expectations concerning the ESG thematic from investors, companies, etc, we believe that the matter of sustainability, including the ESG components, is an ongoing journey forward.

"In the long run, sustainability will prevail over geopolitics or any other factors, driven by the shared responsibility to safeguard the future of our planet and generations to come," IOI Corp says.

SD Guthrie says that while the global discourse around ESG may be evolving, it has not seen any let-up in expectations from its clients and stakeholders.

It adds the group has been on the ball in this area before the scrutiny on ESG went mainstream.

"Our key partners – especially those in Europe and North America – have increased their scrutiny and demand for transparency, particularly in areas such as deforestation, traceability and labour standards.

"We implemented our 'No Deforestation, No Peat, No Exploitation' policy in 2016.

"SD Guthrie has also implemented 'Crosscheck', our online tool that maps our palm oil from source to supply, ensuring traceability for traders and buyers," it says.

SD Guthrie adds it's ready to face increasing scrutiny, including the latest regulation on deforestation imposed by the European Union (EU).

In September 2024, the group demonstrated its preparedness for the EU Deforestation Regulation by successfully completing the first pilot shipments of 40,250 tonnes of its fully traceable and verified palm oil to its Zwijndrecht Refinery in the Netherlands and Liverpool Refinery in the United Kingdom.

The group now views ESG not as a trend, but as a business imperative.

"Our stakeholders expect us to take clear, measurable action – and our 'Beyond Zero' strategy provides the structure and accountability to meet these expectations.

"Rather than scaling back, we are intensifying our ESG commitments and building long-term trust through responsible, transparent practices," it says.

Urban renewal: Balancing growth and individual rights

Chair of Asean 2025
Supported by The Star

By FINTAN NG
fintan@thestar.com.my

URBAN renewal around the world is complicated with all the attendant socio-economic issues that policymakers seek to address and politicians seek to exploit, with the public, even affected property owners as well as residents of the designated urban core, usually left out of the decision-making process.

Malaysia's proposed Urban Renewal Act (URA), which will oversee redevelopment, regeneration and revitalisation of the urban cores of Peninsular Malaysia's cities and towns, has courted controversy mainly for the threshold of consent needed from property owners for redevelopment.

Scheduled to be tabled in Parliament this year, opponents of the URA Bill point to the Strata Titles Act 1985 that requires consent from all owners before redevelopment can occur, whereas the URA will lower the threshold of consent to 80% for properties under 30 years old, with properties over 30 years old requiring 75% of owners' consent and for abandoned buildings, 51% of owners' consent.

While there is certainly a need for urban renewal in pockets of major urban centres, experts are wary that property owners may be disenfranchised while others point to lower-income residents being pushed out due to gentrification.

Previndran Singhe, a veteran property consultant, says balancing development progress with individual rights in Malaysia's urban core requires a people-first approach grounded in fairness, transparency and long-term social impact. He argues for a framework that reflects the country's realities – diverse demographics, varying income levels, and deeply rooted neighbourhood identities.

"A standout local example is the Razak Mansion redevelopment. It demonstrated that redevelopment could succeed when it respects community continuity," he says.

Owners of the original 15-block Razak Mansion built between 1961 and 1967 located off Jalan Sungei Besi in Kuala Lumpur were given one unit each in the 1Razak Mansion project as part of the redevelopment of the area.

"The project gained unanimous consent, remarkable in any urban renewal effort, because it offered tangible, fair outcomes and clear communication from the outset," Previndran says, adding that the upcoming URA must build on such lessons, as while urban regeneration is essential to boost economic growth, the process must remain anchored in social equality.

He says the URA can draw inspiration from Singapore's Selective Enbloc Redevelopment Scheme in which compensation, proximity of relocation and future value appreciation are key pillars.

"Additional best practices can be drawn from Japan, where mixed-use zoning, community-led planning, and strong public-private collaboration preserve local character while introducing new infrastructure and amenities," Previndran says, noting that while the consent threshold is essential for legal clarity and procedural progress, it alone cannot capture the full spectrum of community acceptance.

He points out that other mechanisms to address consent could include early and continuous engagement, transparent information dissemination, mediation and arbitration, independent assessments, flexible options (such as relocation, alternative housing arrangements or participation in the redeveloped project), relocation assistance, alternative housing arrangements, or participation in the redeveloped project where feasible, community benefits agreements (legally binding to ensure redevelopment including affordable housing, public amenities, or job opportunities for existing residents), and phased redevelopment.

"Wherever feasible, regeneration and revitalisation should take precedence over full-scale redevelopment. These approaches focus on adaptive reuse, heritage conservation, and maintaining community continuity, making them more environmentally and socially sustainable.

"They reduce displacement, preserve cultural identity and minimise the carbon footprint associated with demolition and new construction," Previndran says, pointing to Singapore's Tiong Bahru neighbourhood, where Art Deco architecture was carefully preserved while the neighbourhood was revitalised with new businesses and amenities.

The challenges can be daunting to balance economic growth while ensuring the needs of owners and residents of dilapidated low-income neighbourhoods are taken care of.

Dr Wong Hoong Sang, an economist who was also involved in the Kuala Lumpur Master Plan 2020, sees three components for a balanced URA – balancing redevelopment with community interests, prioritising sustainable urbanisation and heritage and cultural preservation.

"In this context, Kuala Lumpur has undergone significant infrastructure improvements over the decades, including the construction of national expressways, inner city highways and public transport systems," he says.

"In terms of green spaces, KL city planners can learn from world class city planners which built admirable green spaces within the city such as Stanley Park in Vancouver, Golden Gate Park in San Francisco, and Centennial Park in Sydney. These are large urban parks which provide various amenities, including open spaces, gardens, wetlands, and sports fields," Wong says.

For him, urban renewal is also key to creating jobs, in particular the high value-added tertiary sector of the economy comprising the services industries such as financial services and other knowledge-based industries.

It is not just the physical infrastructure that matters but also cyberspace, where transforming urban cores mean the need for reliable and efficient Internet infrastructure.

"To promote the development of a digital economy in the cities, the Malaysian government needs to invest substantially in Internet and digital infrastructure to help urbanites to achieve high-income status. Therefore, the authority needs to continue to improve on basic infrastructure for faster, wider and inclusive access (eg, 5G networks) within and without the country because nowadays business depends heavily on reliable and efficient Internet connection," Wong says.

While the URA provides a framework for controlling and supervising urban renewal to ensure projects are physically, economically, socially, and environmentally sustainable for peninsular Malaysia, Wong says it must take into consideration the challenges such as social inequality, environmental concerns and uneven development.

"In terms of affordable housing, it is crucial for economic development, as it allows workers to live and work in the city, supporting the local economy and reducing the income gap," he says.

Green space: A view of the KLCC Park. Kuala Lumpur has undergone significant infrastructure improvements over the decades.

Previndran: Balancing development progress with individual rights in Malaysia's urban core requires a people-first approach grounded in fairness, transparency and long-term social impact.