

Star ESG

ENVIRONMENTAL SOCIAL GOVERNANCE

BUILT FOR SUSTAINABILITY

ESG is taking centre stage in companies across various industries, but one of particular note is property development. With stakeholders in mind, how are ESG standards affecting today's property sector?



Shifting priorities for **property**



What is certain is that sustainability and ESG practices will become part and parcel of the built environment.

Rapid trend towards integration of sustainability factors within developments

By CALYN YAP
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AS the world gradually emerges from the shadows of the Covid-19 pandemic, concerns on climate change are intensifying in tandem with other environmental and social aspects.

With public and investor interest vested in how communities should interact moving forward, attention has naturally turned to sustainable infrastructure and liveable spaces.

Thus, environmental, social and governance (ESG) considerations are becoming increasingly vital in the strategies of companies across various industries – with the property industry among those taking the lead.

According to the World Green Building Council, buildings are responsible for 39% of global energy-related carbon emissions.

That's not to say that the property industry has not been making strides in transforming itself to become more sustainable, as it has championed the Green Building Index and other initiatives linked to the United Nations' Sustainable Development Goals in past years.

PwC's 25th Annual Global CEO Survey also shows that 18% of Malaysia's corporate sector, including construction, have made a net zero commitment and 38% are science-aligned to meet the goals of the Paris Agreement.

Another recent report by PwC, *Positioning Corporate Malaysia for a Sustainable Future*, reveals that Malaysia's materiality reporting on secondary impacts is "above average for greenhouse gas emissions and the highest in Asean for climate change."

And these efforts

towards achieving net zero are starting to pay off, as demand for greener buildings skyrocket – the 2021 Jones Lang LaSalle Inc (JLL) survey *Sustainable Real Estate: Translating ambitions into Action* revealed that 70% of the companies polled were willing to pay higher rents for space in green-certified buildings in efforts to meet decarbonisation targets.

The study stated that the majority currently paying a premium are spending 7% to 10% more in rental costs.

Moreover, in light of the growing importance of ESG, Moody's Investors Service has recently updated its environmental heat map.

It said: "A property's environmental footprint (parameters such as energy efficiency, water usage, waste management and indoor environment quality) could influence leasing outcomes because tenants are becoming more sensitive to the green attributes of their leased spaces."

Historically, it has been proven that green certifications bring about a 6% rent premium and 7.6% sales premium, according to the 2018 Routledge Handbook of Sustainable Real Estate.

In addition, Deloitte notes that as a major consumer of energy, the property sector's focus on "the construction of more sustainable buildings by means of new eco-friendly materials or smart technological heating or ventilation not only helps the environment, but also boosts the return of the respective real estate investment, improving investment performance."

Smart cities, Deloitte points out, are also another



Aside from environmental concerns, the social aspects of sustainability and livability must also be considered in any built environment, as it affects the physical and mental health and well being of the occupiers in the long run.



Creating a sustainable ecosystem within which both communities and biodiversity can thrive is the way forward for the industry.

expression of ESG's impact on infrastructure: "Most of these methods are nowadays designed to allow ESG guidelines to span across the life of a city, in the respective assets, community services and resources, including better (and greener) transportation, improved communication networks, optimisation of energy consumption, water supply, crime detection and waste."

Reassessing built environments

This is the reason that while sustainable developments – especially when it comes to environmental aspects – remains more expensive than conventional methods owing to new and emerging green technology, more players in the property sector are already placing key

importance on integrating ESG elements into their projects.

Association of Valuers, Property Managers, Estate Agents and Property Consultants in the Private Sector Malaysia president Michael Kong said that in time, the costs related to sustainable development will decrease.

"As we progress and embrace green technologies fully, the cost of these methods, practices and technologies will eventually be lowered significantly," he says.

In the long run, Universiti Malaya associate professor (industry) Sarly Adre Sarkum says that investments into such developments will translate into lower running costs and consumption, while some improvements can be made through keen planning and design.

"A massive amount of improvement can be obtained by considering passive design elements such as shading, orientation and ventilation. All this should be part of good architectural design," he opines.

Kong adds that sustainability goes beyond environmental impact, green practices and technology, noting: "Aside from environmental concerns, the social aspects of sustainability and livability must also be considered in any built environment as it affects the physical and mental health and well being of the occupiers in the long run."

What is certain, however, is that sustainability and ESG practices will become part and parcel of the built environment – be it due to increasing investor and consumer pressure, growing environmental awareness, government policies, legislative framework or best construction practices.

"Wherever possible, the 3R concept of reduce, reuse and recycle will be implemented in construction technology.

"Projects that have well thought out designs in terms of environmental sustainability, cost savings and social livability will likely stand out and excel in values," Kong shares.



Driving value through governance

Property developers are incorporating ESG into their projects, as investors increasingly place importance on the criteria



By EUGENE MAHALINGAM
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WITH environmental, social and governance (ESG) practices becoming a vital topic for many investors today, it's not surprising to see many real estate firms acknowledging its importance and relevance.

UEM Sunrise CEO Sufian Abdullah says corporate governance is crucial to investors because it demonstrates a company's direction and business integrity.

"Good corporate governance helps organisations create trust with investors and society, particularly foreign investors that place a greater emphasis on ESG, as seen by various challenges faced by Malaysian companies for failing to comply with ESG requirements, particularly on labour-related concerns."

Sufian adds that ESG standards have become a crucial concern for enterprises, as well as an important investment requirement for real estate capital sources.

"The increased intensity and frequency of severe weather-related occurrences are prompting businesses to analyse property sensitivity and resiliency to proactively manage risk and minimise the effects of climate change.

"Considerations are also given to choice materials, design efficiency and performance of products to ensure that our products are responding appropriately to the climate that they are built in," says Sufian.

Eco World Development Group Bhd (EcoWorld) president and chief executive officer Datuk Chang Khim Wah concurs that ESG or sustainability is a very hot topic currently.

"Certainly there has been more attention given to it this year as compared to the past.

"At EcoWorld, we believe in taking a holistic approach towards ESG. It has to be embedded into the culture of the organisation and in the mindset of every individual from top to bottom, before its positive effects can be felt and benefits realised."

Increasing governance focus

With effective governance in place, Sufian says a company's management can implement and assess its ESG policies, goals and reporting efforts.

"As a result of these complicating factors, real estate companies now have an increased responsibility to do climate-risk due diligence, examine their corporate social responsibility activities and establish, execute and regulate their ESG policies," he says.

IOI Properties Group Bhd (IOIPG) believes that good corporate governance ensures corporate success and economic growth.

"Strong corporate governance maintains investor confidence (be it foreign or local). As a result of which, a company can raise capital efficiently and effectively.

"In turn, capital cost will be lower and there will be a positive impact on the share price. Therefore, good corporate governance plays an important role in attracting foreign investors, especially institutional shareholders," says the company.

IOIPG says sustainability awareness and good ESG practices have over the years grown tremendously as key areas of interest amongst companies and public sentiment around the world.

"Conscientious choices are being made every day by businesses and

ErgoHomes is EcoWorld's new concept that redefines terrace living through integrating efficient space planning and communal spaces.



Certainly there has been more attention given to it (ESG) this year as compared to the past. At EcoWorld, we believe in taking a holistic approach towards ESG.

— Datuk Chang Khim Wah

President and CEO, Eco World Development Group Bhd



communities to embrace energy efficiency and water conservation, along with minimising waste and pollution.

"Naturally, the global shift towards environmentally-friendly practices have begun to influence responsible investments and purchase decisions, driving a growing demand for building and designing sustainable and eco-friendly homes and buildings."

Long term goals

IOIPG notes that green buildings, equipped with energy efficient systems and managed based on sustainable practices, will enable building owners and building management teams to mitigate and adapt to climate change, as well as improve quality of life and reduce operational costs.

"For instance, in its commitment to utilise renewable energy such as solar power to reduce energy consumption from the grid by 15% to 20% at its malls and IOI Rio offices, IOIPG has installed rooftop photovoltaic panels with a combined capacity of 4.2 megawatt hour of renewable energy."

Sime Darby Property Bhd group managing director Datuk Azmir Merican says ESG principles have always been important to many organisations.

"In recent years, it has gained a greater importance among investors, policymakers and other key stakeholders with large companies learning and responding to the ever-changing ESG landscape."

Azmir says the pandemic has undoubtedly elevated the need for stronger corporate

governance among corporations like Sime Darby Property with crucial decisions related to business strategies, risk mitigation, stakeholder management and employee well-being.

"Companies have been tasked to step up their governance systems and commitments, as evidenced by the increase in reputable indices to measure and rate organisations' corporate governance performance in recent years."

Recognising that economies around the world are still adjusting and recovering from the impact of the pandemic, as well as the need to adopt responsible, sustainable and climate-conscious ESG practices, Sufian says UEM Sunrise will continue to refine and strengthen its corporate governance framework.

"This will be based on key statutory provisions, best practices, policies and guidance to ensure that it remains relevant."

Evolution in definition

SP Setia Bhd, meanwhile, says that corporate governance encompasses a wide range of issues.

"It considers both social and institutional factors. The mechanism through which businesses are directed and governed is known as corporate governance.

"It has an impact on how the company's goals are created and achieved, how risk is monitored and assessed, and how performance is maximised," the company says.

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Focus on impact

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EcoWorld's Chang says good governance is a must for listed companies.

"Coupled with strong and consistent performance, good results and execution, it will certainly help to attract more investors including foreign investors.

"At a broader level, a clearly demonstrated commitment to ESG standards and sustainable values, which can be seen on the ground in the products that we deliver, will certainly help to build and grow property values and promote real estate investment."

To provide shareholders with a level of responsibility, Sufian says organisations should clarify and make public the roles and obligations of the board and management.

"Transparency guarantees that stakeholders have faith in a company's decision-making and management procedures.

"At UEM Sunrise, we are committed to achieving high standards of corporate governance, which are critical to business integrity and to maintaining investors and stakeholders' trust in the company."

Adapting to the times

Azmir says Sime Darby Property strives to maintain good governance, in which practices are reviewed periodically to align with changing or new industry standards.

"Since 2018, Sime Darby Property has displayed accountability and transparency with its annual reports that include information on our financial and non-financial performances, with a clear articulation of various risks and opportunities, as well as our mitigation strategies and approach to value creation.

"Our annual reports are prepared in compliance with several regulations, namely the Bursa Malaysia Main Market listing requirements, Bursa Malaysia's Sustainability Guidelines, Malaysian Code on Corporate Governance, GRI Standards, Task Force on Climate Related Financial Disclosures, Malaysian Financial Reporting Standards, and Malaysia's Companies Act 2016."

Chang says EcoWorld has a three-tier sustainability governance structure that has helped the company effectively set, implement, execute and monitor progress of its ESG strategies and goals group-wide.

"At the apex of the structure is EcoWorld's board of directors, who are the ultimate authority over the group's sustainability strategy and governance, guided by our vision, mission and core values.

"EcoWorld's sustainability committee is chaired by its president and CEO and comprises key senior management personnel covering all disciplines and areas of operations.

"This ensures that sustainability initiatives are prioritised and that the needs and aspirations of every stakeholder group are taken into consideration in the decision-making process," says Chang.

He adds that the company's sustainability committee is supported by three separate councils, namely economic and governance; green and operations; and social.

"The committee is led by heads of departments, senior and middle management personnel of the relevant business units and support functions.

"This has enabled the efficient and effective execution and implementation of ESG-related plans and initiatives, as well as swift identification and resolution of any issues that may arise," Chang says.

Check and balance

SP Setia says social responsibility and accountability works as a platform for companies and consumers alike to make a positive impact on local and global communities.

"Businesses that implement a social responsibility initiative that's in line with their values can increase customer retention and loyalty.

The company adds that corporate governance also emphasises shareholder interests.

"Shareholders can reach out to people of the community who may not have a financial interest in the firm but can benefit from its goods or services.

"Reaching out to community members promotes open channels of communication and corporate transparency. It means that all members of the community, including those who are directly or indirectly impacted by the firm, as well as members of the press, have a thorough understanding of the company's objectives, techniques, and overall performance."

Additionally, SP Setia says transparency indicates that anyone can choose to review and verify the company's actions, whether inside or outside the company.

"This builds trust and is likely to attract more people to use the service."

SP Setia also points out that the more information companies provide about how they make money and utilise their resources, the more confidence investors can be in their fundamentals.

"Financial reports that provide a line-of-sight perspective into the company's growth drivers are even better. Transparency facilitates analysis and consequently reduces risk in stock investing.

"As a result, the investor is less likely to be caught off guard."

SP Setia notes that over the last few decades, private sector firms have become increasingly important engines of global economic expansion and job creation.

"As the development of a competitive corporate sector becomes increasingly important for economic progress, all governments are concerned about establishing or improving corporate governance.

"This is especially true for countries in transition, which must build their private corporate sector from the ground up amid a challenging economic shift."



Sime Darby Property wants to be a 'Force for Good' and continuously delivers on its sustainability agenda, as per its 2030 Sustainability Goals that align with the UN Sustainable Development Goals.

Gamuda Land CEO Ngan Chee Meng, meanwhile, says that buyers, especially socially-conscious ones, are becoming more discerning in the choices they make.

"Our approach to creating value for our buyers is centred on how we reshape better environments and foster close-knit communities, while introducing novel concepts and design ideas that can stand the test of time.

"We do so through our Gamuda Green Plan 2025 (GGP), which guides us to conserve, design, implement, enhance and manage a sustainable ecosystem even from the master planning stages."

According to Ngan, the GGP serves as a means towards continuously developing a more sustainable approach to infrastructure and property development.

"The GGP sets out bold targets with emphasis on design and planning, circular construction, community building, digitalisation, as well as environmental and biodiversity stewardship.

"Gamuda Land contributes towards these by focusing on mindful planning and execution throughout our townships. Our efforts include prioritising sustainable modes of transport and energy-efficient standards in its master planning to reduce carbon emissions."

Making real impact

Meanwhile, Deloitte in its paper *Real Estate Predictions 2022: Building A More Sustainable And Future-Proof Business* says real estate leaders can make a real impact as the world transitions into a lower-carbon economy.

"First, by collecting and assessing data on the environmental impacts of building operations, then by investigating and implementing resource efficiencies; and finally by partnering with developers who use sustainable practices and materials," it says.

To improve their ESG governance and impact, Deloitte says corporate real estate first should design and implement processes to record progress and hold leaders accountable for achieving target metrics.



Sime Darby Property strives to maintain good governance, in which practices are reviewed periodically to align with changing or new industry standards, says Azmir, adding that the company reviews its practices periodically to align with changing industry standards.

"This would improve reporting as regulators increase disclosure expectations."

Deloitte says that companies should create a road map that establishes and documents ESG as part of the broader business strategy.

"Effective governance and long-term value creation requires a strong focus on priorities and clear, actionable and measurable goals.

"Share this road map with stakeholders and key decision-makers to help assess risk and move initiatives forward."

Deloitte says firms should intentionally incorporate ESG into the business from the start of a project to how it is managed daily, post-construction.

"This involves everything from raw materials to the use of data analytics to help existing tenants reduce their carbon footprint."

Additionally, Deloitte says companies need to communicate their ESG vision and plans to investors and employees alike.

"Sustainable investing is a growing area of capital formation. Companies can take



IOIPG notes that green buildings, equipped with energy efficient systems and managed based on sustainable practices, will enable building owners and building management teams to mitigate and adapt to climate change, as well as improve quality of life and reduce operational costs.



Sufian says that UEM Sunrise is committed to achieving high standards of corporate governance, which are critical to business integrity and to maintaining investors and stakeholders' trust in the company.

Artist's impression of UEM Sunrise's KAIA Heights. The family-oriented development uses non-toxic, ethical, and sustainable materials and harnesses rainwater for irrigation.

advantage of this new wave if they are transparent about how they incorporate ESG into the mission of their company."

Proactive stance to ESG

Companies also need to conduct robust climate risk assessments to mitigate overall risk and inform strategies, says Deloitte.

"As ESG has become a key factor to meet growing investor, tenant and employee expectations and are driving new business opportunities, it is time to act.

"Firms that take a proactive role in the field of ESG and value the planet and people as much as profits, will definitely create a competitive edge."

Meanwhile, PwC in its paper *Sustainability in the Real Estate Industry* says ESG will leave a lasting mark on the real estate sector.

"Sustainable construction and buildings are not new issues contemplated by the real estate sector.

"What is new is the momentum that has picked up around the topic of sustainability in the past two years."

One thing that has become clear during the Covid-19 pandemic, says PwC, is that companies that have a high level of strategic resilience have an advantage over companies that have not given any thought to such crisis scenarios before.

"This issue will remain at the forefront for the sector, because the challenges arising from a changing climate can lead to new crises for the real estate industry.

"Companies that consider the potential impacts and the fitting solutions to them today will be at a clear advantage tomorrow."



“Our approach to creating value for our buyers is centred on how we reshape better environments and foster close-knit communities, while introducing novel concepts and design ideas that can stand the test of time.”

— Ngan Chee Meng, CEO, Gamuda Land

Transforming the industry

Due to high levels of energy consumption and a strong dependence on fossil fuels such as oil and gas, PwC says real estate represents a key element in implementing a more sustainable energy supply.

"There is significant pressure to reduce carbon emissions from buildings by over 80%, compared to 1990 levels.

"Actively managing the energy transition away from fossil fuels to renewable energy sources significantly reduces the climate-related risks for investments."

PwC notes that a relevant portion of carbon dioxide emissions emitted by buildings relates to the construction materials used.

"Concrete and steel are highly energy-intensive, robust building materials that can outlast a building's normal useful life.

"A building's carbon dioxide emissions can be significantly reduced if building materials no longer required are recycled, thus taking a further step towards a circular economy."

As they are responsible for significant emissions, PwC says buildings have a strong impact on the world's climate.

"Different investments perform very differently. One key challenge is that the data on emissions by buildings is often not sufficient or available.

"That's why real estate companies usually have to make assumptions to appropriately quantify emissions so that they are able to correctly adapt the unique features of the buildings."

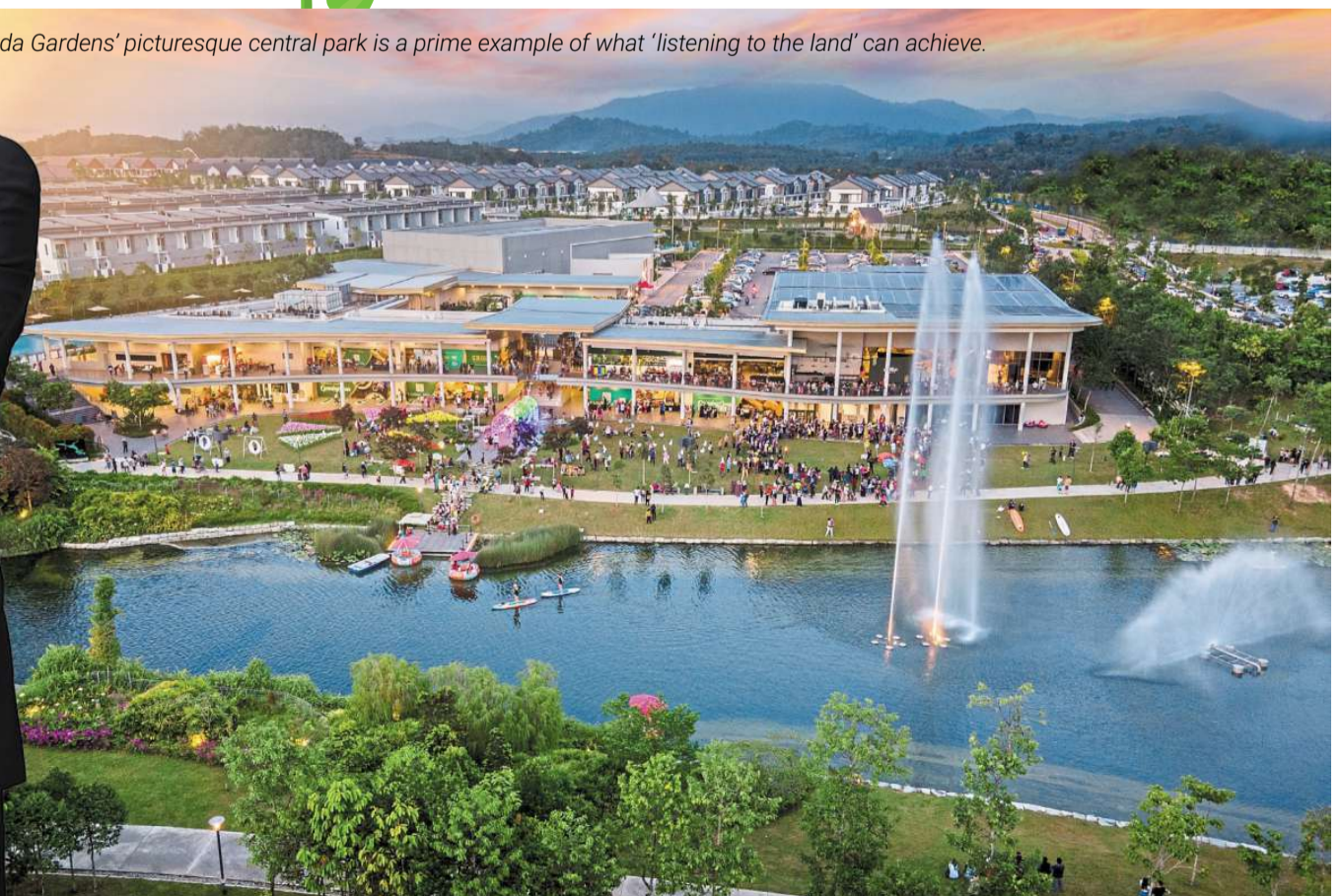
Additionally, PwC says retail and institutional investors are placing greater store in investments satisfying certain non-financial standards.

"Real estate investments, which for instance are suitable for green bonds, can combine improved terms and conditions with a positive impact. Strategic screening and identification of suitable assets are crucial in order to enable sustainable financial products to be offered."

Deloitte also says that the ESG criteria needs to be taken into consideration in the acquisition process.

"Those who address these issues as part of their ESG due diligence are able on the one hand to identify interesting investments; while on the other, collect relevant data when a property is acquired."

Gamuda Gardens' picturesque central park is a prime example of what 'listening to the land' can achieve.



By CHOW ZHI EN
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Effectively integrating ESG values into **developments**



IOI PROPERTIES
Trusted.

IOI Properties Group upholds environmental ethics through green efforts

THE Paris Climate Agreement in 2015 and the United Nations (UN) Climate Targets laid the foundation for a comprehensive consideration of environmental, social and governance (ESG) values that found its way in the real estate sector.

Seemingly, capital markets are increasingly starting to recognise the importance of pioneering ESG initiatives in business decisions, with the rapid adoption of ESG criteria affecting investments and funds.

Now, developers not only have to identify good locations to build communities in, but also provide good investment opportunities to property purchasers through sustainable architecture and master-planning.

As the impact of ESG on real estate continues to become clearer and more prominent, the question has evolved from whether ESG factors impact real estate markets to how property developers can take measurable actions and initiatives to incorporate sustainability into their projects.

It's not just about what a developer can provide its community and residents, it's how they go about delivering on those promises.

Laying the foundation

For IOI Properties Group (IOIPG), they illustrate their commitment by example and contribute to solving societal challenges by strategically aligning their sustainability efforts with the UN Sustainable Development Goals.

The developer has identified the following areas to tackle (as mentioned in the previous issue):

- > Delivering excellence
- > Caring for the environment
- > Developing sustainable communities
- > Creating value for employees

Noting these as guiding principles, IOIPG strives to instil the importance of environmental sustainability across their network of stakeholders, including customers and tenants amongst others.

They do this through properties that are designed specifically to uphold environmental ethics. Put simply, this means that IOIPG looks at optimising energy and water resources within their developments, as well as carbon emissions and waste reduction practices.

The group also adopts the Low Carbon Cities Framework criteria in their developments to prioritise green buildings, reduce carbon emissions and ensure natural resources and waste are managed efficiently.

The reality for developers now is that building sustainably is a rapidly growing aspect of the real estate industry and is a key method for property developers to address climate change.

A place for tomorrow

For starters, IOI Rio @ Bandar Puteri Puchong features an abundance of lush green spaces to create refreshing oases for city folks through parks, playgrounds and courtyards that offer relaxing spots amidst the modern development.

Scattered around the development will be green public areas that are interconnected with walkways that join into a sprawling town park.

The masterplan of the development is also designed to channel vehicles entering IOI Rio into the basement level, averting congestion at ground level, so that pedestrians can enjoy a safe walking experience in the township.



IOI Resort City's Central Park promotes a healthy family-centric lifestyle with numerous unique elements to encourage greater walking and cycling among residents.

To allow a commute-friendly experience, IOI Rio will be connected to two LRT stations, as well as bus and taxi services with covered stands and shaded walkways.

This is a commendable shift towards reducing carbon emissions from city congestion and private vehicles, as IOI Rio is also a smart city integrated with walking and cycling paths with green buffer zones, crossing through pocket parks for verdant vistas.

The idea is that the freehold 80-acre IOI Rio will rejuvenate Bandar Puteri Puchong within a self-contained destination that is cleaner, greener and more conducive for work, living and leisure.

The developer highlights the overall missions of IOI Rio as the following:

- > To implement infrastructure which supports a low carbon lifestyle
- > To incorporate green technology and green features in the design of common facilities and buildings
- > To encourage and educate a low carbon lifestyle through community engagements
- > To create a green community involving members of the community to share knowledge and ideas on the latest green initiatives

With the adoption of property technology too, smart cities like IOI Rio incorporate concepts like smart security systems with facial recognition and Bluetooth technologies for cardless access control at guard points and lift lobbies – touchless entry points are a welcome addition in a post-Covid-19 landscape.

A smart home and smart office system will be installed in most of the buildings within the development to optimise energy usage.

IOI Rio also utilises LED or high-energy efficiency solar-powered streetlights. It has also included a rainwater harvesting system for landscape irrigation to reduce reliance on potable water sources.

IOIPG leverages on innovation and technology to continually create positive impacts towards the environment and well-being of society.

In the future, electric vehicle charging stations will be also installed to promote low carbon mobility.

To further reduce their carbon footprint, IOIPG incorporates passive and active principles in their operations and developments like IOI Rio.

These include initiatives like actively sourcing for local construction materials and products to reduce carbon emissions, using energy-efficient and water-efficient appliances such as LED lights and dual flush water cisterns; as well as harnessing natural light and enhancing ventilation.

Preserving biodiversity, bolstering communities

Building new neighbourhoods and communities undoubtedly changes the surrounding environment so contingencies



The Town Park at Bandar Puteri Puchong was enhanced to connect residents with nature.

Good governance begets good practices

SUSTAINABILITY remains at the core of the various strategies that key industry players use in the property development market.

These strategies are implemented through policies and are a tangible way to measure the efforts of property developers, while building trust with stakeholders, including investors and customers.

Let's take a look into the area of supply chain management, which is an area of interest for IOIPG.

While this topic may sound rather abstract, people nowadays do look at whether or not the products they use or consume are sourced and made ethically.

To maintain its name as a trusted developer, IOIPG has set one of its targets in the areas of human rights, environment, health and safety, amongst others.

IOIPG has taken initiatives to address this by implementing awareness sessions along their supply chain by encouraging its vendors, suppliers, contractors and consultants to align their operational practices with the high standards set by the Group in relation to environment, labour practices, health and safety, and human rights.

need to be in place to preserve threatened and endemic species of flora and fauna in the area.

In a real estate context, this is done through conservation efforts by IOIPG to conserve urban biodiversity.

The refurbished Town Park at Bandar Puteri Puchong provides ecological functions; achieving the natural effects of temperature regulation, improvement of air quality, oxygen production and carbon sequestration, and surface runoff reduction.

The Town Park had undergone refurbishment to improve its infrastructure, which included an 80-metre boardwalk, canopied social spaces, hanging bridges, outdoor fitness stations, integrated playgrounds, a nature trail and even a secret garden to foster greater community interaction and biodiversity appreciation.

Meanwhile, the 10-acre Central Park at IOI Resort City which is due to be completed in Q3 this year also aims to conserve plant species that are critically endangered or threatened under the International Union for Conservation of Nature-Red List of Threatened Species.

In 2022, IOIPG received an A rating in the MSCI ESG rating assessment and moving forward, the Group will be adopting the TCFD recommendations.



The Clio 2 Residences at IOI Resort City use a system formwork that uses prefab components to reduce material wastage, which is in line with IOIPG's Sustainability Policy and Waste Management Policy on using resources responsibly and minimising waste.

This Central Park comes equipped with a bike and skate park, basketball, futsal and badminton courts, giant slides for families, a boardwalk for parkgoers to enjoy the pristine lake views and waterfront activities and also jogging tracks.

The upgrading of the 7-acre Central Park at 16 Sierra is also expected to be completed by the fourth quarter of this year, alongside a 9-acre Oasis Park in Bandar Puteri Bangi, which further emphasises IOIPG's urgency in protecting the environment.

The leading developer is also taking the following initiatives to preserve urban biodiversity through their urban parks:

- > Preserving 5% of trees of every available species
- > For development in land exceeding 300 acres, to designate an area within the green space to be provided for the preservation of biodiversity

The upgrading of these parks and the new central parks in IOIPG's key properties were done to provide a conducive ecosystem to enable a thriving biodiverse environment within the communities they develop.

A neighbourhood is only as good as the

people in its community after all and IOIPG is determined to build ones that care for the environment from the ground up.

IOIPG has supported the global biodiversity initiative, City Nature Challenge (CNC) since 2019.

Since last year, the developer has collaborated with local organisers to host the IOIPG City Nature Challenge – an occasion where people can connect with nature while generating valuable urban biodiversity data, important to scientific work that protects nature.

To date, IOIPG has recorded 6,123 nature observations and have identified 1,641 species across their developments in Malaysia, Singapore, and Xiamen, China.

This demonstrates IOIPG's environmental conservation efforts across various programmes and initiatives in fostering greater awareness of environmental sustainability in their communities.

Building for the future

10 award-winning projects over the years that embrace various sustainability values

By **WONG LI ZA**
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WITH rapid urbanisation all over the world, buildings are being constructed at a fast pace, be it for residential or commercial purposes.

However, the built environment has a vital

role to play in terms of carbon emission and sustainable development.

According to the World Green Building Council, buildings are currently responsible for 39% of global energy-related carbon emissions – 28% from operational emissions and the remaining 11% from

materials and construction.

In Malaysia, much progress has been seen in recent years in terms of how buildings are being green or at least embracing more principles of sustainability.

Through the Malaysian Institute of Architects or Pertubuhan Akitek Malaysia

(PAM) Awards, held annually, various projects have been recognised for their architectural ingenuity and how they promote sustainability.

Here's a look at 10 projects that have won the top prizes at the PAM Awards over the years.



1

The International School Kuala Lumpur (ISKL) by HOK/Veritas Design Group

PAM Awards 2019: Gold Award, Education category Green Building Index (GBI) platinum-rated

The 10.5ha campus is the first international school in the country to receive a platinum rating. The project adhered to green sustainable construction processes as well as the United Nations Sustainable Development Goals (SDG).

Construction waste materials were segregated into landfill and recyclable categories.

During the design and construction, the use of environmentally-friendly products that were locally sourced and produced was practised to reduce carbon dioxide (CO₂) emissions from transportation involved.

Materials with recyclable content were also used, such as green cement with fly-ash content and recycled content steel bars, to reduce CO₂ emission from raw material harvesting and production.

Energy-efficient air-conditioning systems as well as active and passive initiatives are in place to reduce the school's energy consumption. The building is also designed to reduce heat gain by avoiding direct east and west sun-facing directions and incorporating glazed windows.

The school is also landscaped in ways that promote the native biodiversity of the surrounding areas.



Twinkle Villa, Kampung Janda Baik, Bentong, Pahang by CY Chan Architect

PAM Awards 2017: Building of the Year and Gold Award, Single Residential category

In order to preserve the original surroundings as much as possible, only two trees were cut to make way for the building's construction. The result is a villa that blends in with the surrounding idyllic forest.

Fair-faced concrete was cast on site and used for main building components while clay brick walls were used to divide internal spaces. Both were utilised without plastering and paint, which is one of the ways to minimise environmental damage. This method also means minimum maintenance is required in the long run.

Several passive design strategies were also implemented, for instance, by having an open-plan concept from the entrance to the living area to take advantage of the lower temperatures of Janda Baik while maximising cross ventilation.

The fair-faced concrete wall also acts as a thermal mass to absorb, store and later release the heat. Double-shading is also in place, via the concrete roof and also natural tree shade, which reduces sunlight into the internal spaces.

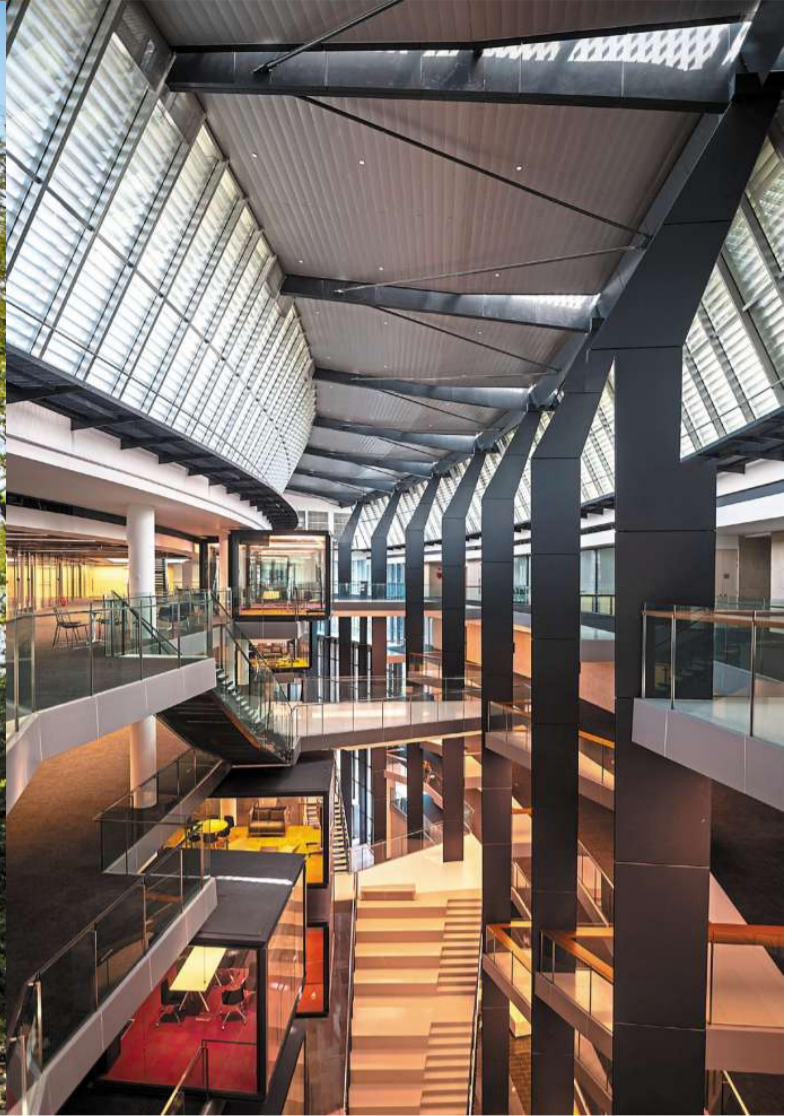
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3

AICB Building, Kuala Lumpur by GDP Architects
PAM Awards 2021: Building of the Year and Gold Award, Public and Institutional Building category

The building's design promotes internal exploration by playing with space, light and materials. The entrance lobby facade's intricate louvre patterns, reflecting traditional songket weaving, help filter the sun's rays into the building and thus cooling it. Internally, the atrium is designed in a way that promotes quality of space usage.



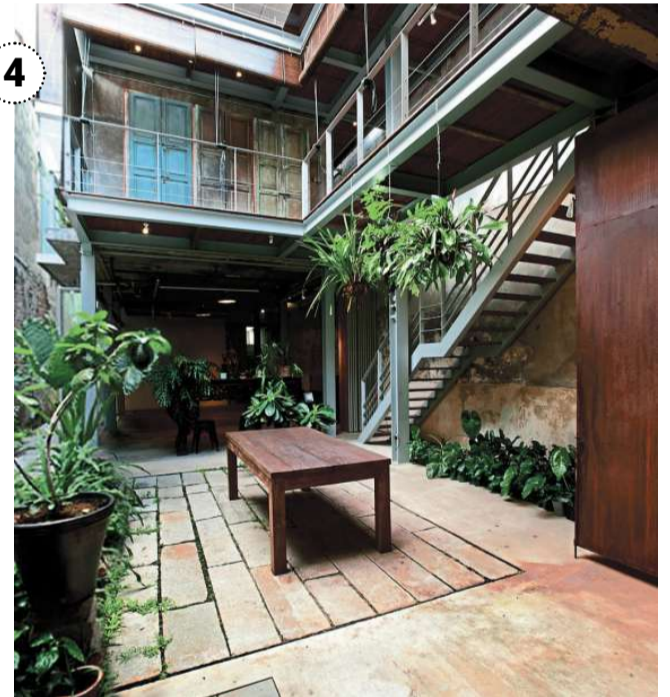
2

Sinkeh Hotel, Penang by Veritas Design Group

PAM Awards 2015: Building of the Year and Gold Award, Alteration & Addition category

An example in adaptive reuse, this project reimaged an old Straits Chinese shophouse that dates back to the late 19th century. The design retained as much of its original architecture as possible, including its upper facade, the traditional central open courtyard and party walls. This promotes natural sunlight and ventilation into the space. Care was also put into ensuring that what could be conserved - like the upper facade and some old floorboards - were retained to reduce material use and to preserve its heritage. The hotel has suspended its operations since 2020 due to the pandemic.

4



5

Kondominium Kapas, Kuala Lumpur by Masyerin M.N. Architect/Domaine Architects

PAM Awards 2021: Gold Award, Multiple Residential (high rise) category

The unique cladding components of the facade give the building its distinctive look. Adopting a porous exterior and extended overhang using a combination of aluminium cladding and ventilated concrete blocks, the design allows a free flow of natural ventilation and makes the building cooler.

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Best of **green architecture**

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6

Conservation of Fort Alice, Sri Aman, Sarawak by Arkitek JFN

PAM Awards 2017: Gold Award, Conservation category

The jury commented that the attention to detail reflected in the restoration of this old fort was truly commendable, as well as the effort made to engage the local community in helping to preserve history for future generations.



7

Masjid Raja Haji Fi Sabilillah, Cyberjaya by Atsa Architects

PAM Awards 2017: Gold Award, Public and Institutional category

In this project, judges commented that the overall design is simple and skilfully infused with sensible climatic responses. Its striking minaret also was a break away from the usual mosque designs.





8

Villa Santubong, Belum Rainforest, Pulau Banding, Perak by Yelill Architect

PAM Awards 2016: Silver Award, Single Residential category

With a design that is sensitive to its environment, Villa Santubong follows the natural contours of the land. Featuring three pavilions, the split-level residence is surrounded by tall trees and thick vegetation. It has an airy set-up, featuring louvred window panes and full-length glass walls, to encourage natural sunlight as well as natural ventilation.



9

338 U Thant, Kuala Lumpur by Ken Wong Architect

PAM Awards 2016: Silver Award, Multiple Residential (low-rise) category

The low-density project is arranged in a pattern that allows each unit – which comes with its own garden area – to overlook a central common green belt. A layer of aluminium cladding wraps around the masonry to keep the house cool and ensure privacy. Public areas can also be opened up to promote cross ventilation.



Rimbayu Commercial Hub, Telok Panglima Garang, Selangor

PAM Awards 2017: Gold Award, Planning and Master Planning category

The master plan of this project emphasises good landscaping and innovative recreational spaces placed in between the residences and commercial hubs. The man-made water body plays a vital role in facilitating placemaking for the entire community, while cooling down the space at the same time

10



10 ways to make your home more eco-friendly

WE know that climate change is happening. We also know that this crisis is caused by human activities resulting in increased carbon emissions.

But are we changing our behaviour to stop climate change?

Natural systems around the globe are affected more than ever – extreme weather, sea level rise, floods and droughts.

Extreme weather events have become increasingly regular across the globe.

In Malaysia, one such rare phenomenon was in last December, when some parts of the country received one

month's average rainfall all in just one day, which led to massive floods.

Global temperatures are rising faster than expected, as indicated in the United Nations Intergovernmental Panel on Climate Change report, whereby greenhouse gas emissions generated by human activities have increased since 2010 across all major sectors globally.

According to the report, urgent climate action needs to be taken to limit global warming to 1.5°C above pre-industrial temperatures.

While we sit and wait for

global leaders to drive forward the best collective action, it's up to every one of us to do our part. And there actually is something that you can do from the comfort of your own home.

Afterall, we have only one liveable planet that we call home. It's up to us to act before losing Earth for good.

The idea of making your home eco-friendly can often feel overwhelming, but spending your entire savings on organic foods and hybrid vehicles is not the only way to make your life eco-friendlier.

While many people associ-

ate going green with inconvenient and expensive lifestyle changes, there are actually simple and cheap adjustments that you can make around the house to significantly shrink your carbon footprint as well as save you a whole chunk of money in the long run.

A wallet-friendly, sustainable lifestyle is attainable. You just have to find the best compromise between sustainability and affordability that you are comfortable with.

Start small and you'll be surprised by how easy it is to make a change.



Switch to LED light bulbs

LED lights emit less heat, which saves more energy and is a simple way to reduce your energy bill. Energy star-rated LED products use at least **75%** less energy and can last 25 times longer than standard incandescent bulbs.



Turn off the lights

Turning off the lights when not in use is a small, yet effective, way to reduce energy.



Grow greens

Planting more greens can help restore the environmental balance. Whether small trees in the garden or house plants indoors, it will definitely add allure to your space while contributing towards a better environment. You can even grow your own food with microgreens.



Install solar panels

Opting for solar panels is a long-term investment that can slash your utility bill in the long run.



Clean air filters

Air conditioners use more energy when the filters are dirty. Clean and replace filters when necessary.



Efficient cooking

Cooking using the right-sized burner uses less energy every time you cook. Use small burners for small pots and large burners for larger pots.



Repair or switch to energy-efficient appliances

Replace worn out appliances like washing machine, refrigerator and dryer with new ones that have energy star ratings. Repair electrical issues immediately, like flickering bulbs and electrical surges.



Air dry clothes

Malaysia is blessed with tropical weather all year round, so just hang your clothes to air-dry rather than using the dryer.



Save water, save energy

Take a shorter shower, turn off the tap when not in use, wash clothes when only with full loads - the list goes on.



TheStar graphics

Reuse and repurpose

There are a lot of tutorial videos available on YouTube for do-it-yourself and repurposing ideas.

> **Reuse bags** - whether canvas, plastic or paper - for grocery, garbage and for whatever occasion you can think of.

> **Repurpose your old T-shirts** around the house for cleaning.

> **Reuse egg cartons** to grow seedlings or for art materials.

> **Repurpose plastic bottles** for pencil holders, bottle sprinklers or plant hanging baskets.

Ideas are endless.