

# SUSTAINABILITY REPORT

<b>54</b>	<b>General Disclosures</b>
<b>80</b>	<b>Sustainable Planning and Design for Construction</b>
<b>92</b>	<b>Our Community and Our Business</b>
<b>116</b>	<b>Environmental and Biodiversity Conservation</b>
<b>124</b>	<b>Enhancing Sustainability via Digitalisation</b>

*Photo: Celadon City, Ho Chi Minh City, Vietnam*

## SUSTAINABILITY REPORT

## Foreword

**AS THE WORLD CONTINUES TO GRAPPLE WITH THE COVID-19 PANDEMIC, GLOBALLY, THERE IS A GREATER SENSE OF REALISATION ON THE SIGNIFICANCE OF GOOD ESG TOWARDS SAFEGUARDING OUR FUTURE. THE PRESENT PANDEMIC IS A STARK AND TIMELY REMINDER OF WHAT IS AT STAKE. TO THIS END, WE ARE COMMITTED TO CONTINUE INVESTING IN OUR PLANET AND DOING BUSINESS RESPONSIBLY.**

Even before the COVID-19 pandemic, sustainability was already gaining importance on the corporate agenda. Today, environmental, social and governance (ESG) investing is driven by irreversible forces as corporations and companies continue to integrate these factors as a core strategic imperative to their businesses.

With the rise of responsible investing, profitability and sustainability are not mutually exclusive in the long run.

ESG has long been a part of Gamuda's DNA. Our sustainability practices have matured to a point where our decarbonisation commitment and ESG metrics are now linked to effective executive management performance.

**DRIVING ESG THROUGH THE GAMUDA GREEN PLAN 2025**

Our ESG agenda crystallised in FY2021 with the Gamuda Green Plan 2025 (GGP 2025).

We have four pillars: Sustainable Planning and Design for Construction; Our Community and Our Business; Environmental and Biodiversity Conservation; and Enhancing Sustainability via Digitalisation.

The GGP 2025 blueprint outlines our overall approach to ESG, risks and opportunities, strategic priorities and plans. It addresses climate change and social development in the next five to 10 years with tangible targets and timelines.

We are committed to reducing direct and indirect corporate greenhouse gas emissions intensity by 30 percent in 2025, and by 45 percent in 2030.

Given our role as an infrastructure and property group, we will achieve the bulk of our carbon reduction targets by enabling renewable energy (RE) supply in buildings and developments under our control and incorporating sustainable masterplanning with green mobility elements designed into our projects.

The following tactical targets will drive our aim to cut top-level emissions:

- ▶ Reduce urban planning emissions by 35 percent and transport emissions by 10 percent
- ▶ Reduce non-RE consumption by 40 percent
- ▶ Reduce freshwater demand by 65 percent
- ▶ Reduce waste sent to landfills by 50 percent

Our GGP 2025 is a dynamic, living roadmap towards improved ESG performance and value creation. Detailed information on the GGP 2025 is listed from pages 76 to 79.

**PURSUING SUSTAINABLE PLANNING AND DESIGN**

At the concept planning and design stage for our infrastructure projects and developments, we can factor in strategies to significantly reduce environmental impacts and resource consumption.

Sustainable masterplanning is integrated as a Group-wide approach and applied across all of our developments.

Whole-life design leads to reduced maintenance and more efficient operations. It affords savings in energy usage and significantly reduces the total life cycle carbon footprint of our developments. Our architects will promote the biophilic design concept, which seeks to connect building occupants closely to nature by incorporating natural lighting and ventilation, natural landscape features and other elements to create a productive and healthier built environment that consumes fewer resources.

To align this goal throughout the Group, we have set clear targets to pursue sustainable urban planning with a structured plan. This includes managing urban planning emissions, the introduction of low carbon commuting networks, closing the waste loop, improving efficiency in our mechanical and electrical (M&E) systems, and value chains.

**GREENER FUTURE WITH RENEWABLE ENERGY**

This financial year, we commit to the potential development of over 300MW of RE projects in the next five years as part of the Group's clean energy growth plan. This is the first step in our ambitious plan to reduce the Group's dependency on non-renewables and uphold our commitment to transitioning to a low carbon future.

**GAMUDA COMMUNITY**

We are developing a team of Subject Matter Experts (SMEs) on climate science to ensure we deliver the GGP 2025.

With the Gamuda Scholarship programme, we plan to double the quantum allocation and opportunities to study abroad while focusing more on low-income families. Since 1996, the scholarship programme has contributed to the betterment of society by providing quality educational opportunities to the nation's brightest minds and maintaining a constant pipeline of talented young blood for the Group's recruitment.

In promoting diversity and inclusion in the workforce sector, the Enabling Academy (EA) has trained many young adults with autism spectrum disorder with 80 percent of our graduates securing jobs. The EA also has expanded its network of engaged companies to 150 organisations. This pioneer Employment Transition Programme (ETP) has fostered collaboration across the public and private sectors within the community members, and was endorsed by the Special Education Division (SED) – Ministry of Education, and Youth Skills Development Division (YSDD) – Ministry of Youth and Sports as a teaching guide for teachers and practitioners.

To further promote an inclusive community, we continue to empower the indigenous communities through educational opportunities and sustainable employment. Aiming towards poverty reduction, the Group has tapped the native communities' inherent knowledge about nature to bolster our biodiversity conservation efforts.

**BIODIVERSITY AND ENVIRONMENTAL CONSERVATION**

Biodiversity is at the heart of sustainable development and human well-being, and its conservation forms the core of the United Nations 2030 Agenda for Sustainable Development. We continue to prioritise biodiversity conservation across our developments. This is reflected when we launched Gamuda Parks in 2018 to consolidate all our efforts in biodiversity enrichment, conservation, education, and township management.

We have made steady progress under our conservation and carbon sequestration efforts and achieved 30 percent of our goal to plant one million trees and saplings by 2023.

This progress was facilitated by the 90 acres Forest Park and Wetlands Arboretum in Gamuda Cove, the first privately-owned tree conservation park and wetlands reserve in Malaysia. In a close partnership with the indigenous community, our arborists and horticulturists work hand in glove to revive native and endangered species as part of biodiversity conservation within our developments.

Our successful pioneering efforts in creating dense urban forest parks in degraded land using the Miyawaki technique have proven that we can rapidly scale to cultivate urban forest clusters for our developments, including Gamuda Cove, Gamuda Gardens and Penang South Islands (PSI).

In order to take stock of the level of biodiversity of each of our developments, we have conducted a total of nine biodiversity audit assessments. Details on our biodiversity audit results are available at <https://gamudaland.com.my/gamudaparks/>

**ENHANCING SUSTAINABILITY VIA DIGITALISATION**

The Group's sustainability efforts are further enhanced as we embrace digital transformation. We will leverage on Building Information Modelling (BIM) as a key digital engineering tool to boost operational efficiency and adopt 100 percent Digital Industrialised Building Systems (IBS) across our developments and townships.

Enterprise resource planning (ERP) is the critical backbone for data integration. The Group embarked on digitalised procurement processes with the SAP Ariba system two years ago. We made further investment in a new-generation cloud-based ERP platform – SAP S/4HANA that allows faster and more meaningful data-driven decisions with a more automated process for greater transparency.

To improve the Group's digital engineering landscape and promote innovation opportunities, we have the Gamuda Excellence Transformation (GET) unit comprising our best digital and data experts to raise our digitalisation standard by working with business units across the Group.

We have made encouraging progress in FY2021 despite the challenges present. As we enter the endemic phase of COVID-19, we are ready to chart forward and remain steadfast in realising the set goals and objectives.

SUSTAINABILITY REPORT

About This Report

THE SUSTAINABILITY REPORT 2021 (SR2021) COVERS ASPECTS THAT ARE MATERIAL TO GAMUDA AND PRESENTS SIGNIFICANT IMPACT TO OUR STAKEHOLDERS FROM AN ESG PERSPECTIVE, HIGHLIGHTING OUR EFFORTS TO CREATE VALUE FOR ALL OUR STAKEHOLDERS.

FOR A MORE COMPREHENSIVE PERSPECTIVE OF GAMUDA'S BUSINESS AND OPERATIONAL PERFORMANCE, READERS ARE ENCOURAGED TO READ THE SR2021 TOGETHER WITH THE REST OF THIS ANNUAL REPORT.



Photo: Origami Park, Jade Hills

Both the financial and sustainability narratives complement each other towards developing a unified and unique value creation representation that establishes the relationship between ESG matters and financial performance.

We started reporting non-financial aspects within our Annual Report in 2016.

**REPORTING PERIOD**

Our Sustainability Report is published annually. This year's report covers information on our sustainability performance for the period from 1 August 2020 to 31 July 2021 (FY2021).

Our last sustainability report was published on 9 November 2020.

**STATEMENT OF USE**

The Board of Directors (Board) of Gamuda, which is the Group's highest decision-making body, acknowledges the responsibility for the following statement of use: The information reported by Gamuda for FY2021 has been prepared in reference to the Global Reporting Initiative (GRI) Standards.

**REPORTING SCOPE AND BOUNDARIES**

SR2021 is scoped to the business operations and activities of the holding Company and all major Group subsidiaries in Malaysia only, for which Gamuda has direct managerial control, unless otherwise specified. Accordingly, the following entities have been excluded:

- Our joint ventures and associate companies;
- Our water concession, Gamuda Water Sdn Bhd; and
- Our expressway concessions, KESAS Sdn Bhd, Syarikat Mengurus Air Banjir dan Terowong Sdn Bhd, Sistem Penyuraian Trafik KL Barat Sdn Bhd and Lingkaran Trans Kota Holdings Sdn Bhd.

Any mention of Mass Rapid Transit (MRT) Putrajaya Line refers only to the Underground section.

**REPORT QUALITY AND DATA INTEGRITY**

Report content and quality has been guided by the GRI principles, emerging risks and opportunities within Gamuda's operating environment.

All data contained within this report has been sourced internally, verified and validated by the respective business units. We continue to enhance our data collection and analysis processes towards improving data accuracy and quality, and to strengthen disclosures going forward.

The reporting principles covered in this report include:

- Stakeholder Inclusiveness:** capturing our stakeholder's expectations and concerns;
- Sustainability Context:** presenting our performance in the wider context of sustainability;
- Materiality:** identifying and prioritising the key sustainability issues that our Group encounters;
- Completeness:** reporting all sustainability topics that are relevant to our Group, and those that influence our stakeholders.

The full GRI Standards Content Index is provided on pages 132 to 136 of this report.

Other referenced frameworks and guidelines include:

- Bursa Malaysia Securities Berhad's (Bursa Malaysia) Sustainability Reporting Guide (2<sup>nd</sup> Edition)
- FTSE4Good Bursa Malaysia Index
- Sustainability Accounting Standards Board (SASB) Sector Specific Disclosures
- Task Force on Climate-related Financial Disclosures (TCFD)
- United Nations Sustainable Development Goals (UN SDGs)

**ASSURANCE**

We recognise the value of independent verification to ensure the accuracy and integrity of our sustainability disclosures. We have sought third-party assurance on our sustainability disclosures for this reporting year.

The exercise was conducted in accordance with the International Standard on Assurance Engagements (ISAE) 3000 Revised, *Assurance Engagement other than Audits or Review of Historical Financial Information*, over selected key performance indicators (KPIs).

Kindly refer to pages 143 to 145 for the Limited Assurance Statement.

**FORWARD-LOOKING STATEMENTS**

This report contains forward-looking statements such as targets, prospects, plans and reasonable expectations made in terms of expected performance. Such forward-looking information has been made based on presently available data and information as well as current operating environment conditions. These are subject to change based on a wide range of developments that are beyond Gamuda's control.

Readers are advised not to place undue reliance on such statements as our business is subject to risks and uncertainties beyond our control. Actual results may differ.

**REFERENCES**

All references to 'Gamuda', 'the Company', 'the Organisation', 'the Group', 'we' and 'our' refer to Gamuda Berhad.

**REPORT AVAILABILITY AND FEEDBACK**

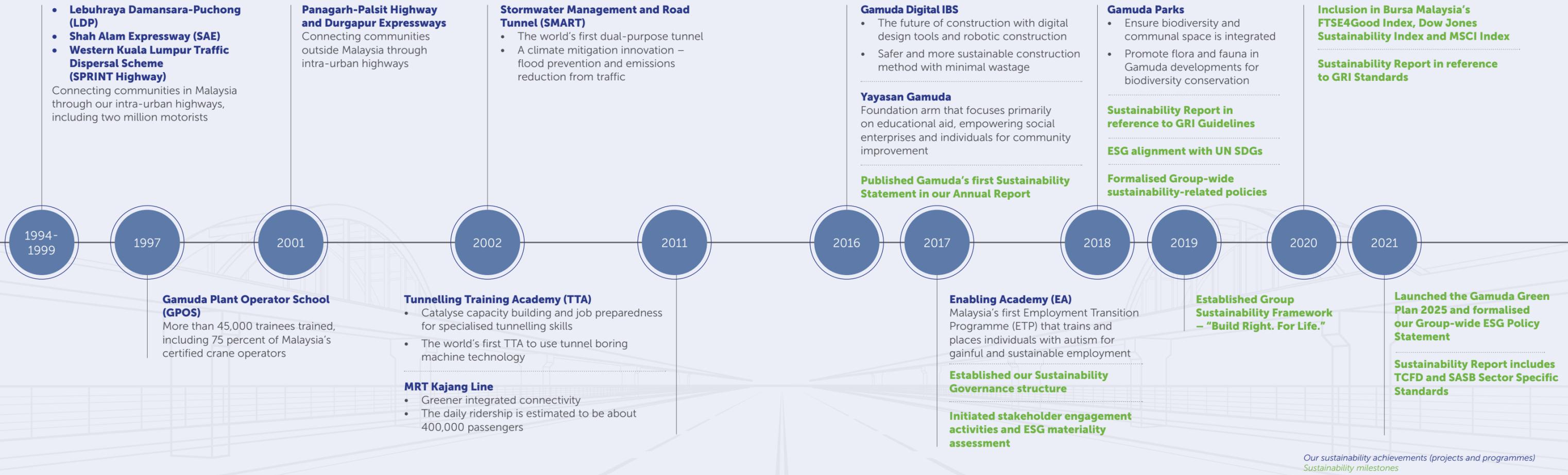
SR2021 can be downloaded from: <https://gamuda.com.my/sustainability-esg/>. We welcome feedback from our stakeholders to continually improve our sustainability reporting and practices.

[ESG@gamuda.com.my](mailto:ESG@gamuda.com.my)

+603 7491 8288

SUSTAINABILITY REPORT

# Our ESG Journey: Milestones and Achievements



**Preventing Flash Floods and Alleviating Traffic Congestion**

- Completed in 2007 to alleviate frequent flash floods in Kuala Lumpur, notably the Merdeka Square area and the upper catchment of the Klang river
- Diverted floodwaters on over 550 occasions to date
- Averted an estimated RM1.4 billion in public damages

United Nations Habitat Scroll of Honour Award, 2011

**Promoting Sustainable Urban Mass Transport**

- Klang Valley Mass Rapid Transit (KVMRT) public rail transportation system is an eco-friendly solution to urban transport and supports the national agenda of boosting public transport modal share to 40 percent by 2030

British Safety Council International Safety Awards (with distinction) MRT Putrajaya Line, 2019; MRT Kajang Line, 2015

**Reshaping Socio-economic Landscape via Highways**

- Improved connectivity and accessibility for local communities across Klang Valley (Malaysia's industrial and commercial heart)
- Accessibility of highways catalysed the developments and job creation, fostering long-term economic growth

Best Performing and Safest Expressway (Open Toll Category) 2020 by the Malaysian Institute of Road Safety Research (MIROS)

**Yen So Park: Urban Renewal**

- Sequencing Batch Reactor (SBR) waste treatment plant developed to treat incoming wastewater, thus ensuring cleaner downstream water flow
- Successfully rehabilitated a cesspool of five contaminated lakes into an urban landscape of verdant blues and greens

Environmental (Rehabilitation/Conservation) (World Gold Award), FIABCI World Prix d'Excellence Awards 2018

SUSTAINABILITY REPORT

Sustainability Achievements

**EdgeProp Malaysia's Best Managed and Sustainable Property Awards 2021**

- ILAM Malaysia's Sustainable Landscape Award (Gold) for Central Park, Gamuda Gardens
- Valencia – 10 Years and Above Residential Category (Gold)
- Valencia – Editor's Choice Awards

**British Safety Council 2020, 2019**

- Sword of Honour Award for MRT Putrajaya Line – 2020; MRT Putrajaya Line – 2019
- Five Star Occupational Health and Safety Audit (Five Stars) for MRT Putrajaya Line (Underground) – 2020; MRT Putrajaya Line (Underground) – 2019

**Malaysia Technology Excellence Awards (MTEA) 2020**

- Winner of Augmented and Virtual Reality in Engineering Category – Underground Package MRT Putrajaya Line

**Building and Construction Authority 2020**

- Building Construction Authority (BCA) Green and Gracious Builder Award for Gamuda Berhad Singapore Branch

**FIABCI World Prix d'Excellence Awards 2020**

- Master Plan Category (World Gold Award) for Gamuda City

**StarProperty.my Awards 2020**

- The Earth Conscious Award – Best Sustainable Development (Excellence) for Gamuda Cove

**Forbes – The World's Best Employers 2020**

- The only Southeast Asia-based company to be listed onto the Top 50

**Malaysia Landscape Architecture Awards 2019**

- Green Initiative Awards (Excellence) for Batu Patong Kelabit Eco Lodge

**RISM Excellence Awards 2019**

- Contribution Towards Sustainability in Construction for Gamuda Berhad

**The British Council Assessment Research Awards 2019**

- The Innovation in Assessment Prize for Gamuda Berhad

**New Civil Engineer Tunnelling Awards 2019**

- Innovation in Tunnel Excavation Award

**Ground Engineering Awards, 2019**

- Winner for Community Engagement Award for Underground Package MRT Putrajaya Line

**Certifications Received:**

- 1 ISO 9001: 2015
- 2 ISO 14001: 2015
- 3 ISO 45001: 2018



**Dow Jones Sustainability Index (DJSI):**

- Globally ranked 23<sup>rd</sup> among 49 in the Construction and Engineering Sector
- Total value score of 30



**MSCI ESG Index:**

- BB rating



**FTSE4Good Index:**

- ESG Rating of Public Listed Companies Assessed by FTSE Russell (3 out of 4 Stars)

Fulfilling Our Commitments: Progress Made

FY2021 HAS SEEN GAMUDA CONTINUE TO MAKE PROGRESS ON ITS SUSTAINABILITY JOURNEY. CONSISTENT WITH THE GGP 2025, THE GROUP CONTINUES TO RECORD A WIDE RANGE OF ACHIEVEMENTS ALIGNING TO THE ASPIRATIONS AND TARGETS SET OUT IN THE UN SDGS.

ENVIRONMENT

**Our Impacts Created**

- MRT Putrajaya Line's sustainable design achieved a **Five-Star Sustainable INFRASTAR** certification
- 1,677 pieces of solar photovoltaic modules, contributing to a **40 percent savings** on annual electricity consumption, are installed on the roof of the Celadon Sports and Resort Club, Vietnam
- Estimated energy savings of **250,000kWh annually** with a cost savings of **RM90,000 per year via installed solar photovoltaic (PV) panels** at Gamuda Gardens Sales Gallery
- **Completed biodiversity assessments** at Horizon Hills and Celadon City
- Launched **Paya Indah Discovery Wetlands** conservation efforts and **Environmental Education programme**
- Planted **302,081 trees** to date, achieving approximately **30 percent of our target** to plant one million trees and saplings by 2023
- Recycled **334,333m<sup>3</sup>** of water across Gamuda Land's construction sites
- Collected and composted a total of **8,230kg of food waste**
- Avoided **15,600kg of fabric waste** from landfills to be repurposed

**Our Strategic Priorities**

- Achieve **40 percent reduction in CO<sub>2</sub>e** emissions compared to business as usual (BAU) by 2030
- Reduce **Scope 1 and Scope 2 emissions intensity by 30 percent by 2025 and 45 percent by 2030**, respectively, across our construction and operations
- Nurture and plant **one million trees and saplings** by 2023
- Develop **2,000 acres of green spaces and waterscapes** across 12 urban forest clusters within our developments by 2025



ECONOMIC

**Our Impacts Created**

- Increase in year-on-year net profit by **56 percent**
- **Expanded usage of Digital IBS** into several projects, including Amber Residence at twentyfive.7, Gaia Residences at Gamuda Gardens and Maya Bay Residences at Gamuda Cove
- The Group's operation\* in Malaysia recorded **99.5 percent** of its procurement sourced from local suppliers, while Gamuda Land recorded **98.1 percent** spending on local suppliers
- Saved more than **RM300 million** from sustainable e-procurement through SAP Ariba while leveraging on enterprise resource planning (ERP) solution via SAP S/4HANA
- Received top honours in the **Malaysian Technological Excellence Awards (META) 2020** for our Building Information Modelling Augmented Reality (BIMAR) Application

**Our Strategic Priorities**

- Adopt **100 percent Digital IBS** across all of our developments
- Transform into a **data-driven organisation** by integrating our processes
- **Leverage on Building Information Modelling (BIM)** as a key digital engineering tool to enhance overall operational efficiency
- Introduce **ESG evaluation criteria** in supplier selection processes



SOCIAL

**Our Impacts Created**

- Invested **RM3.9 million** in Gamuda Scholarship 2021, where **27 scholarships** were awarded
- **43 percent of women** representation on Gamuda's Board of Directors
- **Competitive benefits** including claims to cover COVID-19 diagnostic tests under the Flexi-Wellness Benefits (FWB) programme
- Endorsement of the **Enabling Academy Employment Transition Programme (ETP)** by local government ministries
- Invested **RM8 million** to mitigate the impacts of COVID-19 including setting-up of the RT-PCR laboratory, Gamuda Clinics and Triage Centre
- Created **more than 200 employment opportunities** at our Wetlands Arboretum and nurseries via the Wild Seed Tree Bank, Advance Tree Planting, sale of crafts and farm produce, and eco-education programmes
- Contributed **165 tablets** and **12 months Wi-Fi connectivity** to students from the *Orang Asli* community to support online learning development at Bukit Cheding and Bukit Kemandol
- Awarded a total of **RM50,000** to **10 outstanding winners** of the Star Golden Hearts Award (SGHA) 2021
- Awarded an additional **RM150,000** to two winners of the Gamuda Inspiration Award (GIA) 2021 – **Crisis Relief Services and Training (CREST) and Suriana Welfare Society Malaysia (Suriana)**

**Our Strategic Priorities**

- **Scale up community investment efforts** via Yayasan Gamuda programmes
- **Develop our people and industry partners** via continuous development programmes
- Develop a sustainable pipeline of **Subject Matter Experts (SMEs)** in the area of **sustainability and climate science**



\* Excluding Gamuda Land, joint ventures and associate companies, except for MRT Putrajaya Line - included in the percentage

SUSTAINABILITY REPORT

**Sustainability Governance and Framework**

**GAMUDA SUSTAINABILITY GOVERNANCE STRUCTURE**



For further information on our corporate governance and risk management, kindly refer to:

- Corporate Governance Overview Statement – pages 146 to 155.
- Integrity and Governance Unit (Anti-Bribery and Corruption Policy, Code of Business Ethics and Whistleblowing) – pages 65 and 164.

At Gamuda, we believe that good governance plays a key role in achieving the Group’s objectives to deliver our sustainability targets moving forward. This year, we have strengthened our sustainability governance structure for the effective implementation of the GGP 2025. Beyond the Group, the governance structure also looks to drive ESG across its value chain. Kindly refer to our Stakeholder Engagement section on pages 67 to 68.

**BOARD OVERSIGHT ON ESG TOPICS**

Gamuda’s Board of Directors (Board) is ultimately accountable for ensuring that sustainability is integrated into the Group’s strategic direction. The Board strives to ensure fair and transparent remuneration, promoting positive outcomes in tandem with the achievement of ESG-linked targets. In line with the Securities Commissions’ (SC) update in April 2021 to the Malaysian Corporate Code of Governance (MCCG), the Board has direct oversight of ESG matters, related risks and opportunities over the short, medium and long-term.

The Group’s Chief Sustainability Officer (GCSO) and Risk Management Committee (RMC) meet on a regular basis to ensure the alignment of relevant risks and opportunities with the Group’s material sustainability matters. Moving forward, the Group aims to further embed ESG into the Group’s risk matrix and its Performance Management System (PMS). This supports the overall effectiveness in assessing ESG risks and opportunities to ensure the resilience of the Group’s business model.

Role	Responsibilities
<b>Board of Directors (Board)</b>	<ul style="list-style-type: none"> <li>Maintains strategic oversight on ESG and retains overall responsibility of the Group’s sustainability direction</li> <li>Reviews the progress and sets the aspirations on sustainability matters. The SSC led by the Group Managing Director sets the direction, objective and targets for ESG matters</li> </ul>
<b>Risk Management Committee (RMC)</b>	<ul style="list-style-type: none"> <li>Ensures corporate risk, audit risk and ESG risks are included and monitored. This includes effective risk mitigation response and the realisation of ESG commitments</li> <li>Approves disclosure statements relating to management of ESG matters of the organisation</li> </ul>
<b>Group Chief Sustainability Officer (GCSO)</b>	<ul style="list-style-type: none"> <li>Supports strategy implementation and ensures processes and controls are in place within the business units across the Group for alignment with the latest ESG reporting standards</li> <li>Provides support and guidance to business units’ functions on identification and management of material sustainability matters, including overseeing stakeholder engagement and materiality assessment</li> <li>Works closely with the RMC, SSC and SMEs to align risk and opportunities with material sustainability matters</li> <li>Reports on the Group’s performance against ESG-related targets</li> </ul>
<b>Sustainability Steering Committee (SSC)</b>	<ul style="list-style-type: none"> <li>Comprises Business Unit Heads to ensure the alignment and implementation of ESG plans across the Group with the Group Managing Director’s strategic direction</li> <li>Monitors economic, environmental and social (EES) risks related to the business operations and strategy</li> <li>Works closely with the Project units and promotes a collaborative approach to ensure robustness of systems and processes in sustainability management</li> <li>Approves targets and ESG disclosures</li> <li>Meets on a quarterly basis with the GCSO to monitor the progress of the Group’s sustainability performance</li> </ul>
<b>Subject Matter Experts (SMEs)</b>	<ul style="list-style-type: none"> <li>Provides advisory to the SSC on climate science areas to help deliver the GGP 2025</li> <li>Explores new market opportunities for sustainable growth</li> </ul>



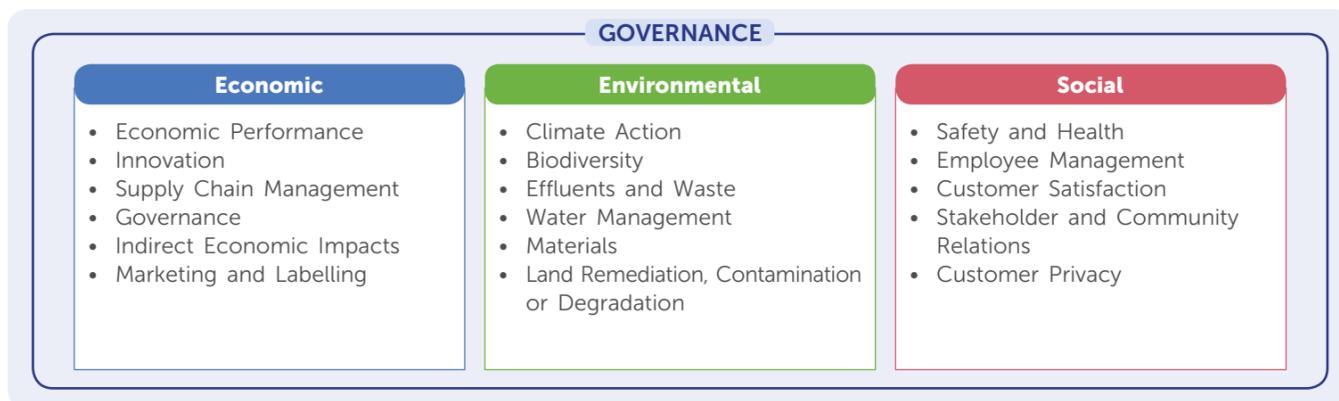
Photo: SPRINT Highway

SUSTAINABILITY REPORT

### Gamuda Group ESG Framework BUILD RIGHT. FOR LIFE.



OUR FOCUS



OUR GLOBAL ALIGNMENT



OUR APPROACH



#### GOVERNANCE THROUGH ROBUST POLICIES AND ADHERENCE TO LOCAL LEGISLATION

Gamuda strives to uphold the highest level of ethical standards at all times and in all aspects of our business. We abide by all the relevant laws, regulations and industry best practices in the jurisdictions we operate.

The Group's corporate governance practices are guided by the MCCG. Corporate governance is also instilled through an extensive monitoring system, policies, standard processes, training and effective communication.

This is reflected in practices and procedures across our business operations and activities as well as dealings with stakeholders. The Group is aligned to local and global governance expectations of the countries we have businesses with.

Further details on the Group's governance policies are available here: <https://gamuda.com.my/for-investors/corporate-governance/>.

#### FORMULATION OF GROUP-WIDE ESG POLICY STATEMENT

In FY2021, Gamuda has developed the Gamuda Group ESG Policy Statement which provides a clear framework for the incorporation of ESG principles into key practices.

For more information of our ESG Policy Statement, please visit our website at <https://gamuda.com.my/2021/09/gamuda-group-environmental-social-and-governance-esg-policy-statement/inv-corp.gov/>.

#### GOVERNANCE THROUGH STRONG ANTI-CORRUPTION PRACTICES

The Board and the Management of Gamuda are fully committed to ensuring a conducive work environment, upholding strong ethical values and good corporate governance, free from corruption, as embodied in our Managing Director's Anti-Bribery and Corruption Policy Statement, Gamuda Anti-Bribery and Corruption Policy (AB&C Policy) and Code of Business Ethics. Across the Group and in all dealings with stakeholders, members of Gamuda's Board declared this commitment by signing the Director's Integrity Pledge in September 2021.

The Integrity Governance Unit (IGU) was approved by the Board on 13 December 2019 and the unit is responsible for championing the Board and Senior Management's anti-corruption agenda across Gamuda. The IGU is headed by the Chief Integrity and Governance Officer (CIGO), who is responsible for promoting and sustaining an ethical work culture and to mitigate potential incidents of anti-bribery, corruption and other practices that would constitute as poor corporate integrity.

In FY2021, we have also engaged our suppliers to provide their written commitment to abide by the Group's AB&C Policy using the Group's SAP Ariba-based digital supplier platform. In effect, these suppliers have agreed to conduct business in a fair and ethical manner and to uphold good corporate integrity and accountability in their dealings with Gamuda and others. They include nine suppliers with contracts exceeding RM10 million.

The Group continues to strive towards getting more suppliers to view anti-bribery and corruption and corporate integrity as a serious matter and to embed these within their business culture, operations and strategies.

Further details on the IGU are given in the Statement on Integrity and Governance of this Annual Report on page 164 and Gamuda's AB&C Policy can be accessed here at <https://gamuda.com.my/2020/08/anti-bribery-and-corruption-policy/inv-corp.gov/>.

#### GRIEVANCE AND WHISTLEBLOWING MECHANISMS

The Group has established a dedicated whistleblowing mechanism. The whistleblower shall be provided immunity from any form of punitive action, intimidation or reprisal irrespective if the allegation is substantiated or proven to be unfounded, provided that the report has been made in good faith. The identity of the whistleblower is also kept confidential unless otherwise required by law or for purposes of proceeding against or by the Group.

In FY2021, Gamuda has zero proven grievance and bribery, and corruption reported cases.

Further details on the Whistleblowing Policy can be referred to <https://gamuda.com.my/2020/08/whistleblower-policy/inv-corp.gov/>.

## SUSTAINABILITY REPORT

### GOVERNANCE THROUGH COLLABORATION AND MEMBERSHIP OF ASSOCIATIONS

Gamuda’s approach to governance is further strengthened via its membership in related industry bodies and associations. As an active member of these bodies, Gamuda abides by the code and regulations of these bodies, which promote good business conduct and ESG practices in various forms.

Gamuda has also looked into being an active proponent of sustainability via its industry memberships, towards creating greater awareness and a stronger sense of action to bring industry-wide change in prioritising sustainability.

Towards this end, Gamuda continues to play an active role in sharing knowledge and best practices while serving as a supporting voice for better ESG practices via our affiliation with industry associations.

MEMBERSHIP	
American Malaysian Chamber of Commerce (AMCHAM)	New South Wales Indigenous Chamber of Commerce (NSWICC)
Civil Contractors Federation (CCF)	Real Estate and Housing Developers’ Association (REHDA)
Climate Action Network (CAN)	Roads Australia (RA)
Committee for Economic Development of Australia (CEDA)	Taiwan Regional Engineering Contractors Association
Construction Contractors Association (CCA) Western Australia	The Australian Airports Association (AAA)
Infrastructure Sustainability Council of Australia (ISCA)	Tunnelling and Underground Construction Society Singapore (TUCSS)
Kuala Lumpur Business Club (KLBC)	Women in Rail (WIR) Malaysia
Malaysian Investment Development Authority (MIDA)	
Master Builders Association Malaysia (MBAM)	

### DATA PRIVACY

We continue to ensure that the confidentiality of our stakeholders’ personal information is handled with the highest level of respect, in line with the Personal Data Protection Act (PDPA 2010).

The Group has invested in optimum data protection systems, which are enabled by a robust firewall and other information technology (IT) systems.

## Engaging Our Stakeholders

Our engagements with our stakeholders have continued to provide useful insights that have reinforced our assessment of the Group’s ESG material topics and keep ahead of global developments.

We believe it is important for us to establish and maintain strong relationship with our stakeholders. Thus, Gamuda has defined and formalised stakeholder engagements at all level, including projects through the Public Relations and Stakeholder Management Policy. In FY2021, Gamuda conducted assessments to verify human rights risks and impacts by engaging with our business partners, vendors and contractors. This is essential for the extended value chain to understand Gamuda’s expectations on this material topic.

Following is our significant stakeholder engagements and results achieved in FY2021:

Customers				
Type of Engagement	Frequency of Engagement	Area of Interest	Outcome	Addressed by Material Sustainability Matters
<ul style="list-style-type: none"> <li>Social media</li> <li>Newsletter</li> <li>Circulars and email</li> <li>Viewpoint/FieldView</li> <li>Gamuda Land Lifestyle Mobile app</li> <li>Customer portal</li> <li>Events and campaigns</li> <li>Loyalty programme</li> </ul>	<ul style="list-style-type: none"> <li>Weekly</li> <li>Quarterly</li> <li>As needed</li> <li>As needed</li> <li>Ongoing</li> <li>Ongoing</li> <li>Ongoing</li> <li>Ongoing</li> </ul>	<ul style="list-style-type: none"> <li>Product quality</li> <li>Customer service and experience</li> <li>Product/services</li> <li>Safety and health</li> <li>Smart and sustainable cities</li> </ul>	<ul style="list-style-type: none"> <li>Understand the Group’s aspiration and current policies on ESG, especially on delivering quality product/services</li> </ul>	<ul style="list-style-type: none"> <li>Customer Satisfaction</li> <li>Customer Privacy</li> <li>Marketing and Labelling</li> <li>Stakeholder and Community Relations</li> </ul>
Employees				
Type of Engagement	Frequency of Engagement	Area of Interest	Outcome	Addressed by Material Sustainability Matters
<ul style="list-style-type: none"> <li>Town hall</li> <li>Quality, Safety, Health and Environment (QSHE) committee meetings</li> <li>Training and workshops</li> <li>Focus group discussions</li> <li>Surveys</li> <li>Internal communications</li> <li>Newsletter</li> <li>Workplace by Facebook</li> </ul>	<ul style="list-style-type: none"> <li>As needed</li> <li>Quarterly</li> <li>Ongoing</li> <li>As needed</li> <li>Yearly</li> <li>Ongoing</li> <li>Monthly</li> <li>Ongoing</li> </ul>	<ul style="list-style-type: none"> <li>Company direction and performance</li> <li>Career development and training opportunities</li> <li>Workplace safety and health</li> <li>Well-being of employees</li> <li>Effective communication between employees</li> <li>Fair and competitive remuneration practices</li> <li>Work-life balance</li> <li>Climate action</li> </ul>	<ul style="list-style-type: none"> <li>Good understanding of the Group’s ESG direction and efforts, that include updated policies and plans</li> <li>Being part of the management’s forward-looking ideation process</li> </ul>	<ul style="list-style-type: none"> <li>Safety and Health</li> <li>Employee Management</li> <li>Governance</li> <li>Economic Performance</li> </ul>
Suppliers and Contractors				
Type of Engagement	Frequency of Engagement	Area of Interest	Outcome	Addressed by Material Sustainability Matters
<ul style="list-style-type: none"> <li>E-procurement system</li> <li>Supplier training programmes</li> <li>Supplier evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing</li> <li>As needed</li> <li>Annual/ Biennial</li> </ul>	<ul style="list-style-type: none"> <li>Transparency in procurement processes</li> <li>Knowledge sharing and capacity building</li> <li>Digitalised sustainable procurement with SAP Ariba and ERP with SAP S/4HANA</li> </ul>	<ul style="list-style-type: none"> <li>Improvement on the Group’s application on digitalised procurement processes</li> </ul>	<ul style="list-style-type: none"> <li>Supply Chain Management</li> <li>Governance</li> </ul>

SUSTAINABILITY REPORT

Communities				
Type of Engagement	Frequency of Engagement	Area of Interest	Outcome	Addressed by Material Sustainability Matters
<ul style="list-style-type: none"> <li>Community development programmes</li> <li>Information centres for MRT Putrajaya Line and Penang South Islands (PSI) project</li> <li>Company website and social media platforms</li> <li>Collaboration with partners for community development</li> <li>Events and roadshows</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing</li> </ul>	<ul style="list-style-type: none"> <li>Community development and support</li> <li>QSHE</li> <li>Communication on our development plans and projects</li> </ul>	<ul style="list-style-type: none"> <li>Strengthening the relationship with communities where our projects are making a meaningful impact</li> </ul>	<ul style="list-style-type: none"> <li>Stakeholder and Community Relations</li> <li>Safety and Health</li> <li>Biodiversity</li> <li>Governance</li> </ul>

Shareholders and Investors				
Type of Engagement	Frequency of Engagement	Area of Interest	Outcome	Addressed by Material Sustainability Matters
<ul style="list-style-type: none"> <li>Virtual one-to-one and small group meetings</li> <li>Virtual Annual General Meeting (AGM)</li> <li>Virtual Extraordinary General Meeting (EGM)</li> <li>Financial results announcements</li> <li>e-Dialogue/teleconference between the Group and investors</li> </ul>	<ul style="list-style-type: none"> <li>Continuous</li> <li>Annually</li> <li>As needed</li> <li>Quarterly</li> <li>Continuous</li> </ul>	<ul style="list-style-type: none"> <li>Operational and financial performance</li> <li>Shareholder returns</li> <li>Business strategy, risk management and corporate governance</li> <li>ESG performance</li> </ul>	<ul style="list-style-type: none"> <li>Strengthening relationships with shareholders and investors, and improve corporate credibility</li> </ul>	<ul style="list-style-type: none"> <li>Economic Performance</li> <li>Governance</li> </ul>

Regulators				
Type of Engagement	Frequency of Engagement	Area of Interest	Outcome	Addressed by Material Sustainability Matters
<ul style="list-style-type: none"> <li>Industry workshops</li> <li>Meetings and consultations</li> <li>Reporting</li> <li>Inspections</li> <li>Collaboration and partnerships</li> <li>Events</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing</li> </ul>	<ul style="list-style-type: none"> <li>Regulatory compliance</li> <li>Improving construction sector productivity</li> <li>National Housing Policy</li> <li>Climate action</li> <li>Smart and sustainable cities</li> <li>Community development and support</li> </ul>	<ul style="list-style-type: none"> <li>Ensure strong compliance with regulations through regular reporting and communication with the regulators</li> </ul>	<ul style="list-style-type: none"> <li>Climate Action</li> <li>Biodiversity</li> <li>Safety and Health</li> <li>Effluents and Waste</li> <li>Governance</li> <li>Water Management</li> <li>Land Remediation, Contamination or Degradation</li> </ul>

Materiality

In FY2021, we continue to assess our material ESG topics to help us align our sustainability agenda and report on key issues that can significantly affect our stakeholders and business growth.

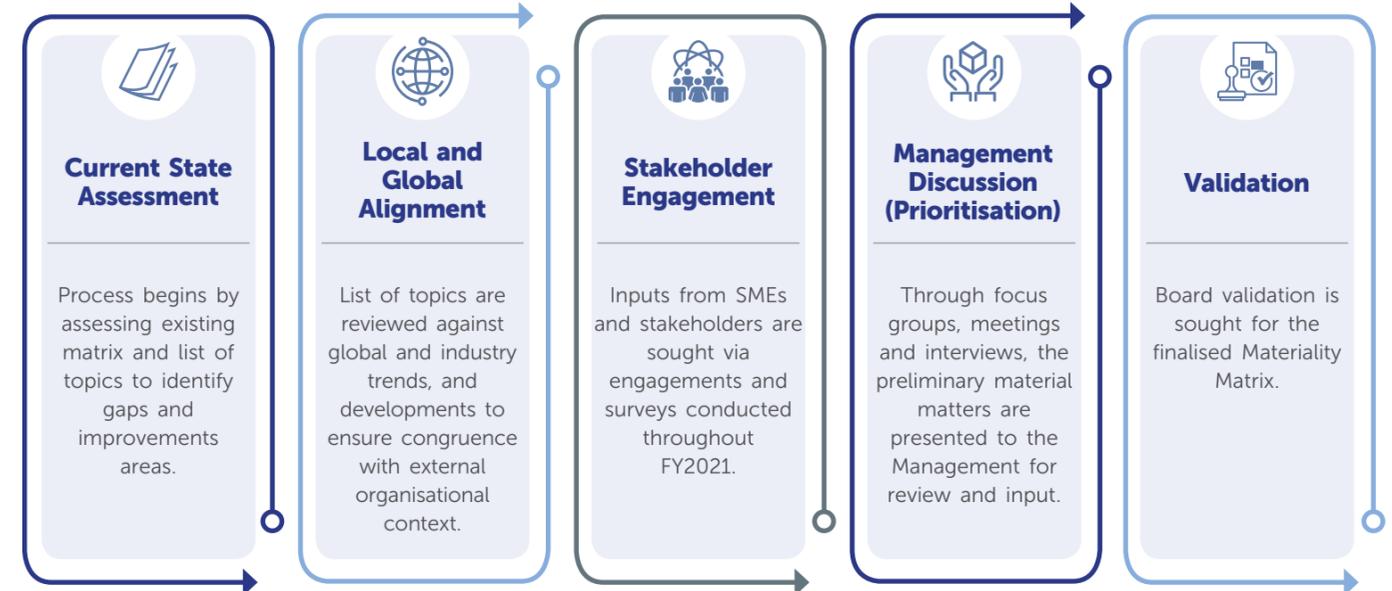
We apply the principle of materiality in assessing what material topics should be included in the SR2021. Our 17 material topics focus on issues that are of utmost importance to our stakeholders, influence the Group's strategy and inform decision-making on short and long-term targets.

In determining materiality, Gamuda is guided by the following criteria:

- Topics that impact the business model (including capitals)
- Topics that impact stakeholders
- Topics that impact EES performance (creation of financial and non-financial values)

Materiality Assessment Process

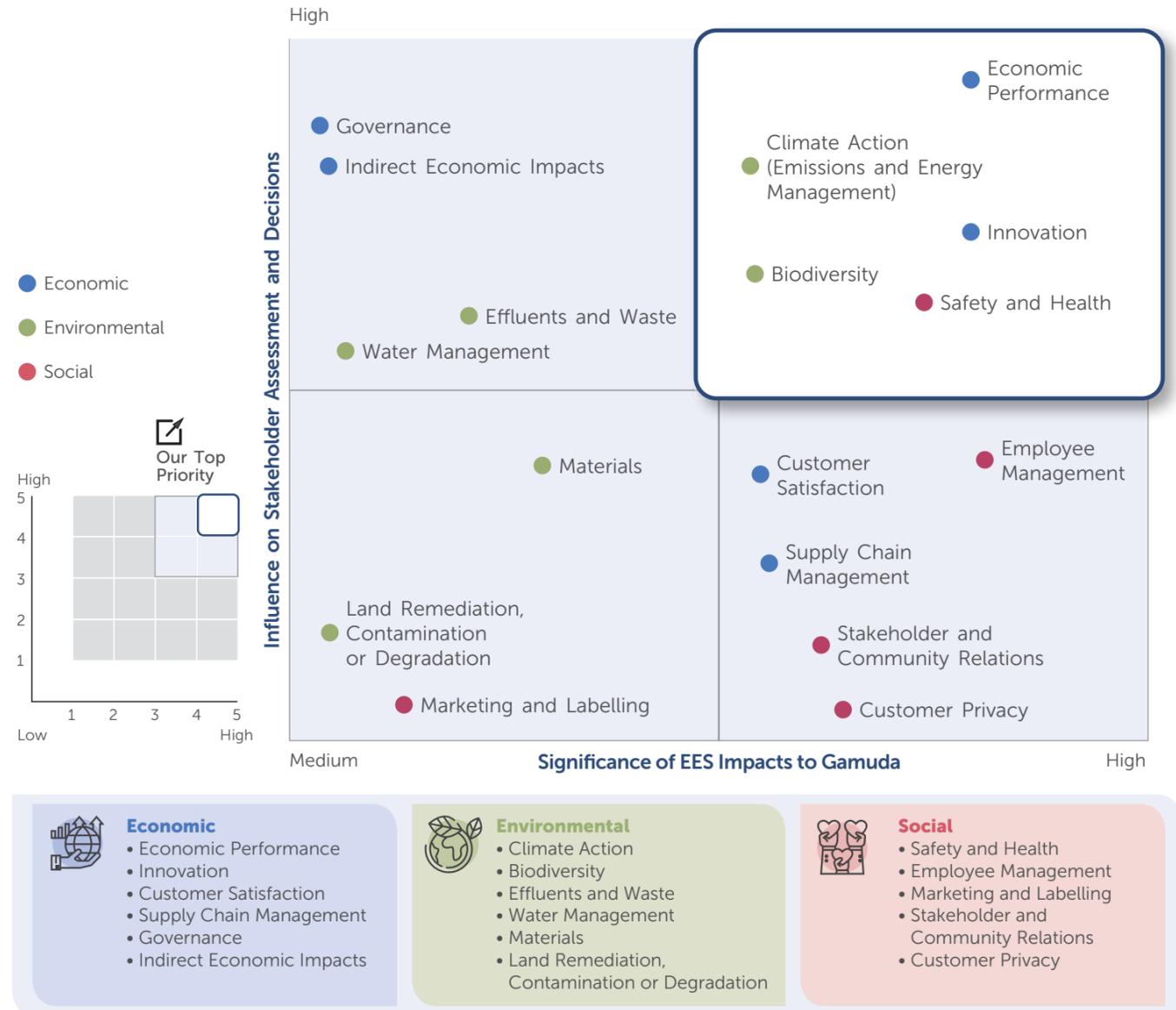
Guided by the criteria, Gamuda implements a closed-loop, five-step materiality process as follows:



SUSTAINABILITY REPORT

FY2021 Materiality Matrix

Our Materiality Matrix for FY2021 is illustrated below:



At the conclusion of our materiality assessment process, we have reconfirmed our 17 material topics for FY2021.

The Group's top five topics remain unchanged. These are climate change (climate action and biodiversity) for environmental, safety and health for social, and innovation and economic performance for economic.

Even so, this sustainability report provides comprehensive disclosure on the Group's other identified ESG topics. Disclosure includes the potential and actual implications of these topics on the Group,

discussion on the management approach, the Group's performance in addressing or in relation to these topics and where relevant, plans going forward.

Importantly, the Materiality Matrix enables Gamuda to draw further insight by reviewing how the FY2021 materiality topics lead to risks and opportunities for the Group.

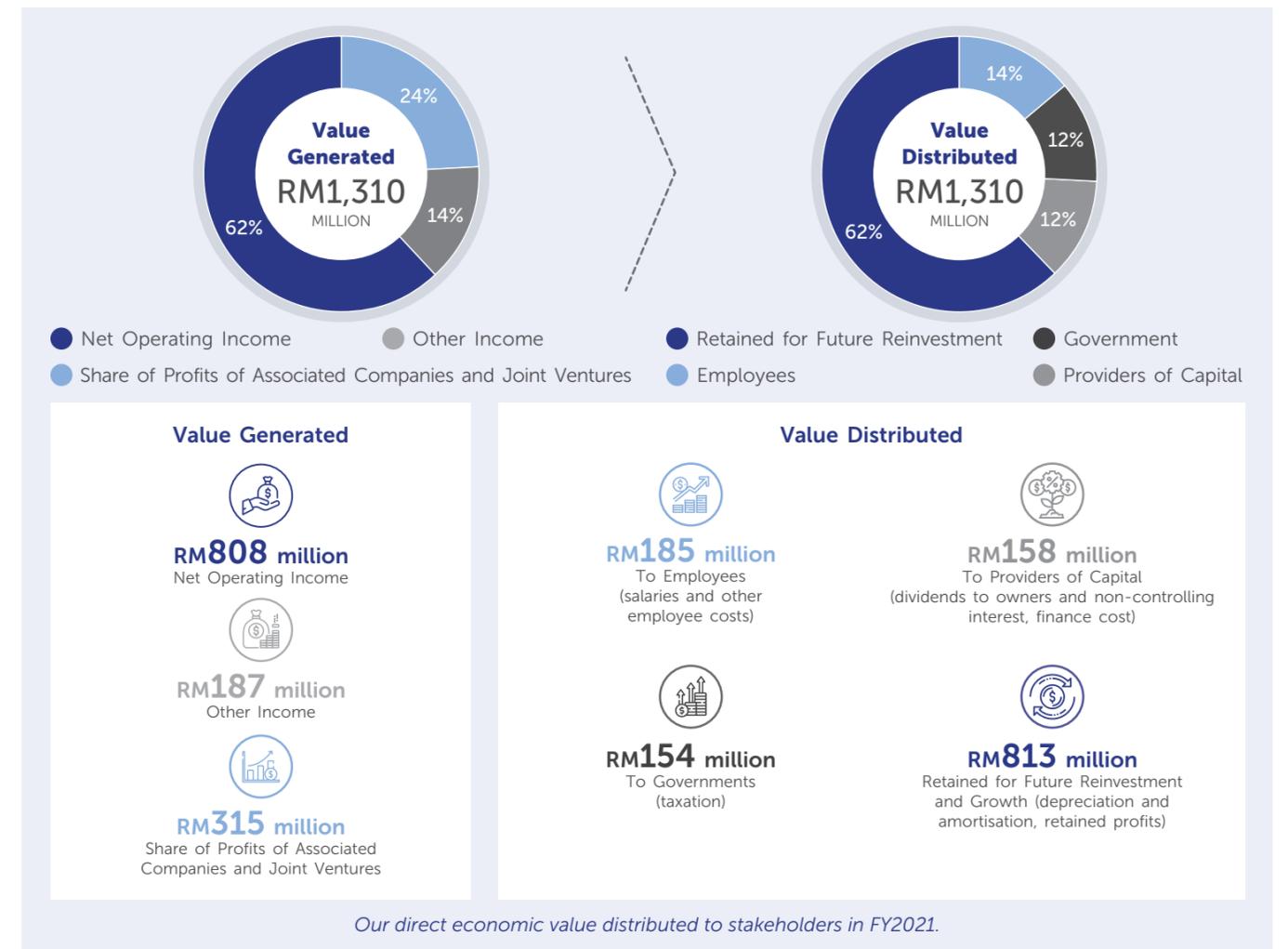
Disclosure on the Group's risk factors as well as opportunities arising from ESG is given in the Sustainability Risks and Opportunities section on pages 74 to 75.

Economic Value Generated and Distributed

Sustained economic performance is essential towards driving the Group's ESG agenda. Growth in revenues and earnings supports the ESG strategies and action plans. It also facilitates continued creation and distribution of economic value to a wide range of stakeholders such as shareholders, investors, employees, social enterprises, non-governmental organisations (NGOs) and others.

Gamuda's continued economic growth fuels a socio-economic multiplier effect comprising job creation, entrepreneurial opportunities, repayment to financiers, increased tax revenues for the government and support for the local supply chain development.

In FY2021, the Group has been invited to share our experience in the Malaysia's Voluntary National Review (VNR) 2021 Report, which is Malaysia's second submission of the Sustainable Development Goals (SDGs) Voluntary National Review, as part of the follow-up to the 2030 Agenda for Sustainable Development. This has further reinforced our aspirations to mainstream ESG in national development planning as we progress towards achieving the 2030 Agenda.



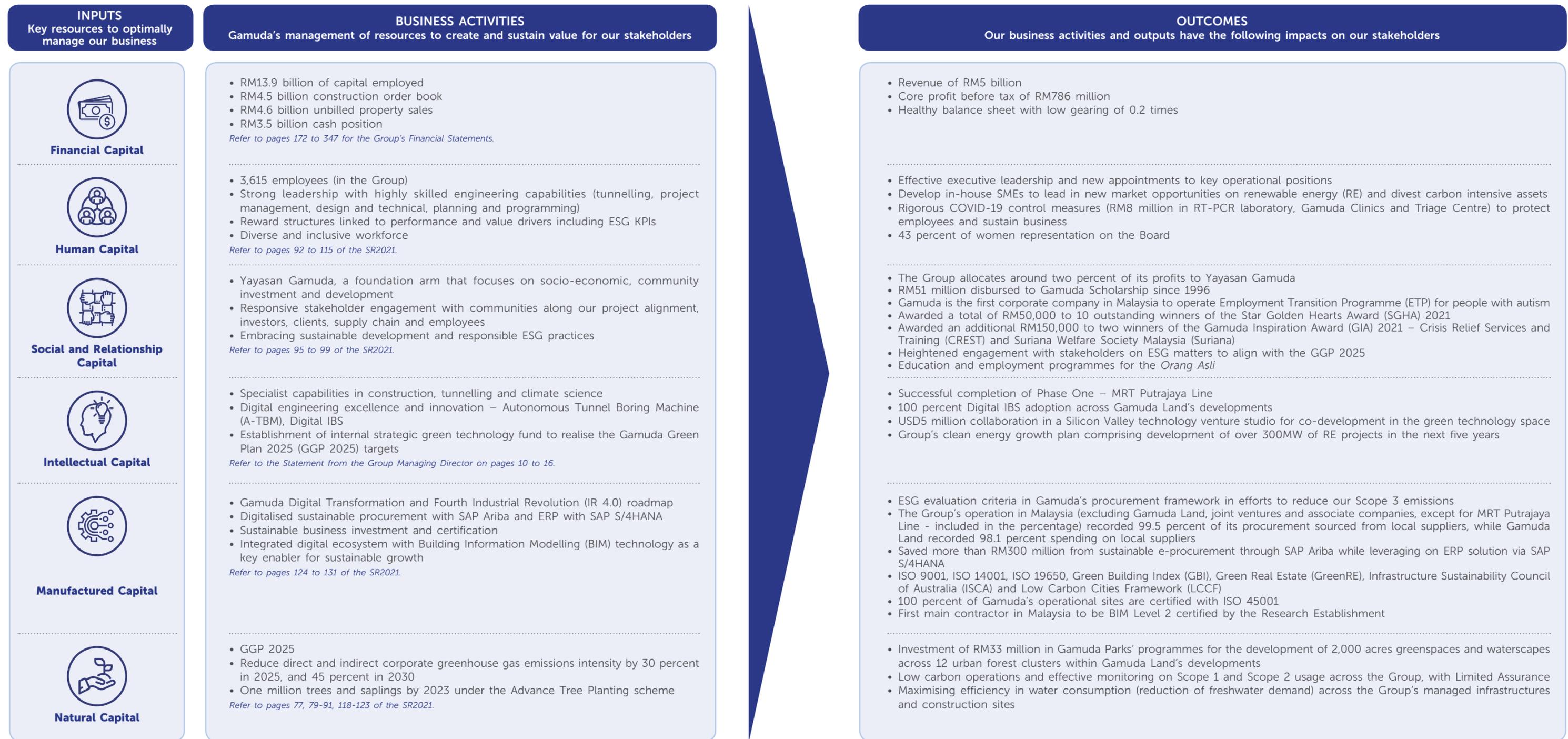
Further information on our economic performance can be found in:

- Statement from the Group Managing Director on pages 10 to 16.
- Group Five Years Financial Highlights on pages 28 to 29.
- Group Segmental Performance on page 30.
- Statement of Value Added and Distribution on page 33.
- Financial Statements on pages 170 to 347.

SUSTAINABILITY REPORT

**Value Creation Strategy**

Gamuda optimises its business model through effective implementation of value creation strategy to achieve business objectives, and deliver the best outcomes for our stakeholders.



SUSTAINABILITY REPORT

**Sustainability Risks and Opportunities**

Gamuda recognises the connection between ESG and risk management, leading to operational risks and missed opportunities for growth. Through stakeholder engagement and materiality assessment, the Gamuda Materiality Matrix have an influence to create long-term value via the Risk Management Framework, ESG Framework – “Build Right. For Life.” and the GGP 2025.

The monitoring of risks and mitigating controls are done in alignment with integrated reporting and guidelines by Bursa Malaysia and Global Reporting Initiative (GRI), and with the consideration of Task Force on Climate-related Financial Disclosures (TCFD) and Science Based Targets initiative (SBTi) moving forward.

Further information on our risk management and internal control can be found in the Statement on Risk Management and Internal Control (SORMIC) section on pages 157 to 158.

**Pillar 1: Sustainable Planning and Design for Construction**

**Related Material Matters**

- Economic Performance
- Innovation
- Supply Chain Management
- Effluents and Waste
- Water Management
- Materials

**Opportunities**

Supporting a low carbon economy through implementing low carbon strategies across our developments. Chance for policy change, green premium consideration, business growth in RE space, and supply change management for the construction sector. In addition, install effective controls in ESG management approach in line with GRI, TCFD and SBTi.

**Strategic Response**

Refer to pages 80 to 91 for more information on how we facilitate sustainable masterplanning featuring climate-responsive design, renewable energy adoption, integrated green transport, super low energy buildings with smart features, and ESG evaluation in supply chain.

Alignment with the UN SDGs



**Relevance and Risk**

- Changes in laws and regulations may lead to an increase in operations cost and alter the competitive landscape
- Sustainability of raw materials supply and production risks may have a direct impact on the Group’s core business operations
- Greenwashing risks and erosion of trust

**Pillar 3: Environmental and Biodiversity Conservation**

**Related Material Matters**

- Climate Action
- Biodiversity
- Land Remediation, Contamination or Degradation

**Opportunities**

To have effective cooperation and transparency with the local communities, governments, and NGOs. This facilitates proven track record of positive natural resources and biodiversity stewardship.

**Our Strategic Response**

Refer to pages 116 to 123 for information on how we drive impactful efforts in nature conservation and biodiversity stewardship in our developments.

Alignment with the UN SDGs



**Relevance and Risk**

- Emergence of more stringent environmental laws and regulations
- Failure to anticipate climate-related physical and transition risks will lead to stranded assets and affect the health and well-being of the communities and ecosystem in which we operate

**Pillar 2: Our Community and Our Business**

**Related Material Matters**

- Safety and Health
- Employee Management
- Stakeholder and Community Relations
- Governance
- Supply Chain Management

**Opportunities**

To develop and apply new technologies to meet the Group’s growth ambitions. The need to recruit, retain and upskill our workforce to inculcate an innovative culture and become a more agile, diverse and inclusive organisation.

**Our Strategic Response**

Refer to pages 92 to 115 for information on how we develop talent capabilities especially in climate science, cultivate good ESG practices, and measure socio-economic impact of our projects.

Alignment with the UN SDGs



**Relevance and Risk**

- Competency adequacy or mismatch to drive the Group’s strategy
- Non-compliance with labour welfare practices and socio-economic laws and regulations may lead to loss of investors’ trust and negative impact on reputation

**Pillar 4: Enhancing Sustainability via Digitalisation**

**Related Material Matters**

- Economic Performance
- Innovation
- Supply Chain Management

**Opportunities**

Accelerating digitalisation and upskilling the digital and data skills of our workforce to transform into a data-driven organisation for enhanced technical and operational efficiency.

**Our Strategic Response**

Refer to pages 124 to 131 for more information about how we leverage on technology and data management to enhance Group-wide efforts in sustainable development.

Alignment with the UN SDGs



**Relevance and Risk**

- Failure to keep abreast with the latest technological innovation may cause increased inefficiency in operations which may result in a loss of competitive advantage, increased operations cost and reduced natural resources conservation

SUSTAINABILITY REPORT

Gamuda Green Plan 2025 - Our Approach to ESG

The GGP 2025 is Gamuda's strategic roadmap towards driving ESG within the Group. The GGP 2025 empowers Gamuda to strategically address ESG risks and opportunities, towards delivering the greatest positive impact and value.

The GGP 2025 comprises four pillars: Sustainable Planning and Design for Construction; Our Community and Our Business; Environmental and Biodiversity Conservation; and Enhancing Sustainability via Digitalisation.



<b>PILLAR</b> <b>1</b>	<b>PILLAR</b> <b>2</b>	<b>PILLAR</b> <b>3</b>	<b>PILLAR</b> <b>4</b>
<b>SUSTAINABLE PLANNING AND DESIGN FOR CONSTRUCTION</b>	<b>OUR COMMUNITY AND OUR BUSINESS</b>	<b>ENVIRONMENTAL AND BIODIVERSITY CONSERVATION</b>	<b>ENHANCING SUSTAINABILITY VIA DIGITALISATION</b>
To facilitate sustainable masterplanning featuring climate-responsive design, integrated transport and super low energy (SLE) buildings with smart features.	To equip ourselves with the right ESG knowledge, become SMEs in our respective domains and cultivate good governance in ESG.	To drive impactful efforts in nature conservation and biodiversity stewardship in our developments.	By leveraging on technology and data management that will enhance and enable Group-wide efforts in sustainable development.

The selection of the pillars was made taking into account Gamuda's business model, the geographic location of our operations, emerging ESG issues, trends and concerns of its many and diverse stakeholders.

Each pillar addresses a specific priority area. However, these pillars cumulatively provide Gamuda with a comprehensive triple bottom line approach in managing sustainability and creating value. Beyond high-level macro strategic direction and objectives, the GGP 2025 also provides specific targets and goals over the next five years, with an extended view to 2030 and beyond.

**Pillar 1 SUSTAINABLE PLANNING AND DESIGN FOR CONSTRUCTION**



Photo: Penang South Islands

**Our Landmark Penang South Islands (PSI) Project**

- We will achieve a **50 percent reduction in CO<sub>2</sub>e emissions compared to business as usual (BAU) by 2030** via:
  - **40 percent reduction in urban planning emissions** with sustainable masterplanning, shared facilities, climate-responsive design and green features.
  - **80 percent reduction in transport emissions** with integrated transport planning putting bicycles ahead of cars and enabling green mobility for a mode share shift from 5PT:95PV to 70PT:30PV\*.
  - **40 percent reduction in non-renewable energy use** from SLE buildings with efficient cooling systems, smart features and renewable energy (RE) installations.
  - **70 percent reduction in freshwater demand** from the dual-purpose sewage treatment plant, rainwater harvesting and water saving devices.
  - **65 percent reduction in landfill waste** with extensive recycling, food maceration and composting.
  - **100 percent RE for powering the Green Tech Park.**

\*PT – Public Transport, PV – Private Vehicle.

- For our **developments**, we will achieve a **40 percent reduction in CO<sub>2</sub>e emissions compared to BAU by 2030** via:
  - **35 percent reduction in urban planning emissions** with sustainable masterplanning, shared facilities and green features.
  - **10 percent reduction in transport emissions** with green transport mobility plans, development of a low carbon transport ecosystem with our electric vehicle (EV) ready developments and establishment of 250km of cycling and pedestrian networks by 2025.
  - **40 percent reduction in non-renewable energy use** from efficient cooling systems, smart features, solar street lighting and RE installations.
  - **65 percent reduction in freshwater demand** from recycling lake water for irrigation, rainwater harvesting and water saving devices.
  - **50 percent reduction in landfill waste** with extensive recycling, food maceration and composting.

**Circular Construction**

Scope 1, 2 and 3 Emissions

- For our **constructions and operations**, we commit to **reduce Scope 1 (direct emissions) and Scope 2 (indirect emissions from electricity consumption) emissions intensity by 30 percent by 2025 and 45 percent by 2030** via:
  - **Enabling supply of RE for our offices, project sites and assets** via solar installations, with a **100 percent RE utilisation target by 2025** via a combination of direct on-site feed-in supply complemented by off-site RE trading and purchase mechanisms.
  - **Reducing energy use by increasing efficiency of our M&E systems** via sustainable procurement including introduction of a Group-wide heating, ventilation and air-conditioning (HVAC) minimum efficiency guideline, retrofitting where necessary and implementation of smart building systems.
  - **Transitioning our fleets to low carbon alternatives** where feasible.
  - **Improving productivity and adopting a circular construction approach** by maximising the efficiency of raw materials and resources, reducing wastage and advocating sustainability throughout our operations committing to a **reduction of construction waste to landfill of 20 percent and recycling of 50 percent of water at our construction sites by 2025.**
- **Introduce ESG evaluation in procurement by 2021** to drive sustainable change in our supply chain and to **set Scope 3 (indirect emissions from supply chain) targets from 2026 onwards.**

SUSTAINABILITY REPORT

**Pillar 2 OUR COMMUNITY AND OUR BUSINESS**



Photo: Tunnelling Training Academy

**People Development and Community Investment**

- Scale up our community investment efforts via Yayasan Gamuda programmes including the **Enabling Academy** and extending our **Gamuda Scholarship programme to build capacity and capability in new sustainability areas** including biodiversity and environmental science.
- Develop our people and industry partners via continuous development programmes through our Gamuda Learning Centre (GLC), Gamuda Plant Operator School (GPOS), Tunnelling Training Academy (TTA), Building Information Modelling (BIM) Academy, Construction Training Centre (CTC), English Language Unit (ELU), Gamuda Parks Academy and KVMRT Safety Training Centre initiatives.

- Develop a sustainable pipeline of SMEs in the area of sustainability and climate science to lead the Group’s sustainable development.
- Introduce ESG KPIs as part of our performance management framework to underscore our commitment to ESG and accelerate the integration of sustainability into our business strategies and operations.
- Elevate safety and health performance through robust risk assessments and controls as well as adoption of best practices with management systems certified to international ISO standards.
- Implement Gamuda standard design for workforce accommodation prioritising well-being with 50 percent more provision of liveable space above local regulatory requirements and a sustainable operating model for energy, water and waste.

**Our Business**

- Establish Group ESG policy and manual which encompasses sustainability governance, management policies, guidelines and standard operating procedures (SOPs) for conducting materiality assessments, data collection, validation and roles and responsibilities.
- Adopt sustainable business practices and principles, especially on responsible investment and certification aligned with ISO 9001 and ISO 14001, GBI, GreenRE and ISCA frameworks.
- Assess ESG risks and opportunities for our business and transparently disclose our ESG-related information on the impact of our business activities. Our ESG metrics and Gamuda Green Plan 2025 targets will be consolidated on a Group-wide integrated ESG digital platform for tracking and reporting.
- Implement a sound governance framework via the Group Integrity and Governance Unit (IGU) with our commitment to conduct our businesses with integrity in a law-abiding, ethical and professional manner.
- Explore new market opportunities, business models and revenue streams for sustainable growth in the ‘green space’ with a focus on RE and recycling, and pursue opportunities to divest from carbon-intensive assets.
- Leverage on transparent digital procurement embracing supply chain and procurement best practices to deliver value for money and sustainable savings.
- Commit to developing the local supply chain and sourcing locally first.

**Pillar 3 ENVIRONMENTAL AND BIODIVERSITY CONSERVATION**

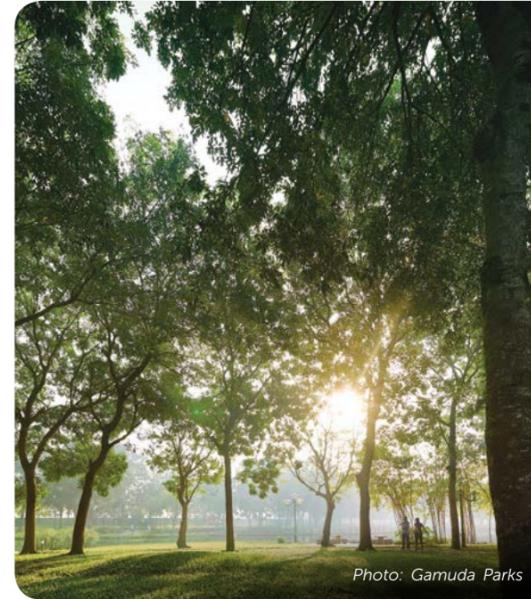


Photo: Gamuda Parks

**Gamuda Parks**

- Nurture and plant one million trees and saplings by 2023 via our Advance Tree Planting scheme mobilising three nurseries with a total area of 43 acres. This programme will support the development of 2,000 acres of green spaces and waterscapes across 12 urban forest clusters within our developments by 2025 to provide cooling, sponge rainwater runoff, foster community well-being and allow nature to exhibit her glory by creating a unique sense of place.
- Conserve biodiversity through intensifying our Gamuda Parks’ agenda via:
  - Setting-up a Wetlands Arboretum with a forest seed bank for native species to ensure nature conservancy by cultivating endangered species and those with conservation importance.
  - Developing in-house specialists in the areas of arboriculture and horticulture complemented with partnerships with the indigenous community through structured initiatives to tap on their inherent knowledge of nature.
  - Conducting biodiversity audits for our developments in collaboration with local biodiversity experts from Forest Research Institute Malaysia (FRIM) and Wetlands International Malaysia (WIM).

**Pillar 4 ENHANCING SUSTAINABILITY VIA DIGITALISATION**



Photo: Gamuda Digital IBS

**Digital IBS**

- Adopt 100 percent Digital Industrialised Building Systems (IBS) across all of our developments for enhanced quality, reduced waste, increased productivity and the upskilling of the local workforce and supply chain in line with our circular construction framework.

**Integrated Digital Ecosystem**

- Transform into a data-driven organisation by digitally integrating our processes with a data superhighway linking our digital engineering, enterprise resource planning (ERP) and data warehouse platforms.
- Leverage on BIM as a key digital engineering tool within this ecosystem to holistically coordinate our design, costing and programme data allowing for greater precision in the design and construction phases and an increased ‘life cycle view’ for the operations and maintenance phase of the project life cycle.
- Elevate digital excellence across the Group with a focus on upskilling data literacy and digital skills as a key enabler for sustainable growth.

Pillar

1

# SUSTAINABLE PLANNING AND DESIGN FOR CONSTRUCTION

To facilitate sustainable masterplanning featuring climate-responsive design, integrated transport and super low energy buildings with smart features



## KEY CONTENTS FOR FY2021



**Green Building Index (GBI) certification**  
Page 84



**Green mobility transportation**  
Page 86



**Adoption of Miyawaki methodology**  
Page 85



**Energy efficiency and adoption of renewables**  
Page 88



**Direct and indirect GHG emissions**  
Page 87



**Water management**  
Page 89



**Circularity through efficient waste management**  
Page 90

Photo: twentyfive.7

SUSTAINABILITY REPORT

**ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) IS A KEY THEME IN GAMUDA AND OUR PRIORITY. THIS IS HIGHLY RELATABLE AS THE CONSTRUCTION SECTOR HAS A LONG-TERM IMPACT ON CLIMATE CHANGE AND BEING RESPONSIBLE FOR MORE THAN 30 PERCENT OF GLOBAL CARBON EMISSIONS AND NEARLY A THIRD OF ALL WASTES.**

Gamuda aspires to **Build Right. For Life.** As ascribed in the first pillar of the Gamuda Green Plan 2025 (GGP 2025), a development and infrastructure player like Gamuda can make the most impact in terms of concept planning and design; where up to 80 percent of a building or project's environmental impacts throughout its life cycle can be effectively mitigated.

Pillar 1 of the GGP 2025 commits the entire Group with specific steps to **reduce corporate direct and indirect greenhouse gas emissions (GHG) intensity by 30 percent in 2025, and by 45 percent in 2030.** Our Group's carbon reduction initiatives will target Scope 1 (direct) and Scope 2 (indirect from the generation of purchased electricity) emissions. Reduction in Scope 2 emissions will be particularly challenging given Malaysia's heavy reliance on

coal-fired electricity generation but we are encouraged by the recently revised national target of 31 percent renewable energy (RE) share by 2025.

Our carbon reductions will primarily be achieved via enabling RE supply for our offices, project sites and assets via a combination of direct on-site feed-in supply complemented by off-site RE trading and purchase mechanisms. In tandem, we will improve the productivity of our operations by maximising the efficiency of raw materials and resources, and reducing wastage throughout our operations. We will also introduce ESG evaluation criteria in our procurement framework to drive sustainable change in our supply chain in an effort to reduce our Scope 3 emissions.

**CLIMATE CHANGE SCENARIO PLANNING**

Gamuda undertakes climate change scenario planning to model our projects against a wide range of plausible future conditions. The process allows Gamuda to anticipate the long-term performance of our projects on economic, environmental and social (EES) parameters, tailoring our decisions to meet the identified EES targets. **It also drives Gamuda's preparedness towards adopting the Task Force on Climate-related Financial Disclosures (TCFD) framework and aligning with the Science Based Targets initiative (SBTi).**

Climate change scenario planning is used in designing the Penang South Islands (PSI) project. Taking into account issues such as rising sea levels, the PSI is designed for climate resilience, in line with the latest recommendations from Intergovernmental Panel for Climate Change (IPCC), the National Physical Planning Council (NPPC) and Low Carbon Cities Framework (LCCF).



Photo: Penang South Islands

**Sustainable Planning and Design for Property and Infrastructure**

Sustainable planning and design are the philosophy of designing the built environment to realise financial, ecological and social sustainability.

Sustainably masterplanned projects have immense potential to realise GHG emissions reduction across the entire project's life cycle by lowering electricity and water usage requirements during the construction and operational phases.

With that in mind, Gamuda has set forth clear plans and targets in the GGP 2025 by aiming for **40 percent reduction in carbon dioxide equivalent (CO<sub>2</sub>e) emissions compared to business as usual (BAU) by 2030 for all our developments and townships** via:

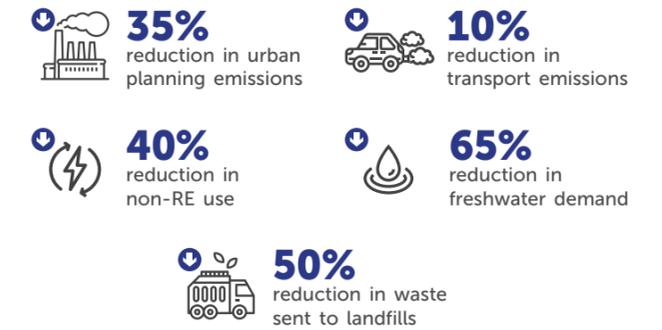


Photo: SplashMania at Gamuda Cove



Photo: SplashMania at Gamuda Cove

**SplashMania at Gamuda Cove**

SplashMania at Gamuda Cove is envisioned as a sustainable water park in the region that incorporates meaningful environmental initiatives. Set as Asia's largest rainforest-themed waterpark, 70 percent of the landscape will be dedicated to green spaces. Our strategy focuses on three main aspects: water, energy and waste management. The approach is to reduce the environmental impact through energy-efficient technologies, sustainable products and building materials.

A crucial aspect of a water park is the management of water resources. While we prioritise a clean water supply for all activities, we will use recycled rainwater for park-wide irrigation and non-potable use. Water-efficient fittings, including low-flow and touchless sensors with a dual flush system, will be installed in the toilets.

Energy management is another aspect of the water park components that utilise significant energy: the water pump,

filtration, and lighting systems. We are committed to managing energy efficiently with the implementation of the solar farm, installation of solar photovoltaic (PV) panels, solar street lighting, energy-saving pumps, fittings and refrigerators, chlorofluorocarbons (CFC) free air conditioner and light-emitting diode (LED) for all lightings.

All types of waste generated from the water park will also be well-managed. Some of the main initiatives include having a composting yard to form compost from organic waste. The derived compost will be utilised for landscaping purposes within SplashMania and Gamuda Cove. We will also ensure 100 percent biodegradable food packaging by all the business vendors and systematic waste segregation for effective recycling.

SplashMania would be a safe and fun recreational destination with minimal environmental footprint with these sustainable initiatives in place.

## SUSTAINABILITY REPORT

### LOW CARBON URBAN PLANNING

The practice of sustainable design at Gamuda starts within the masterplan and building architecture. Taking into consideration of the user's needs of the built environment upon project completion while all the time conserving the use of natural resources. This accounts for embodied and operational carbon with land spatial planning, material choice, traffic demand and patterns, energy and water consumption, and waste management, which affects carbon emissions in a life cycle approach.

This is reflected in the commencement of an analysis framework for Green Building Index (GBI) certification for our under-construction residential phases, namely the Monarc and Ilaria in Gamuda Gardens; Herons and Waterlily in Gamuda Cove, respectively. In addition, we are planning towards a GBI Platinum rated office cluster within the heart of Gamuda Cove. This is a continuation of our sustainability drive with GBI as an industry recognised green rating tool which we have obtained a Gold Standard for The Robertson and HighPark Suites.

Moving forward, all of the Group's future projects and developments will be GBI certified.



Photo: HighPark Suites



Photo: The Robertson



Photo: Gamuda Gardens

Gamuda's development principles show respect for the existing landform. Listening to what the land has to tell us in determining the development area so as to minimise impact, increase biodiversity and improve natural environment. Gamuda has also adopted the Miyawaki forest method, pioneered by a Japanese botanist, with the aim of creating dense urban forests from degraded soils within a short span of 20 to 30 years. Through sustainable masterplanning, Gamuda has managed to set aside large tracts of green, brown and blue landscapes in its developments, to meet the needs of the present without compromising the ability of future generations to meet their own needs.

No	Development	Landscape Area (acres)	Percentage of Landscape Area	Number of Trees Planted
1	Bandar Botanic	192.4	16%	66,770
2	Bukit Bantayan Residences	1.3	7%	629
3	Celadon City	42.8	19%	5,615
4	Gamuda City	24.5	6%	3,896
5	Gamuda Cove	25.9	2%	11,256
6	Gamuda Gardens	50.6	6%	13,081
7	HighPark Suites	3.4	77%	620
8	Horizon Hills	357.1	30%	50,513
9	Jade Hills	57.3	16%	10,179
10	Kota Kemuning	421.6	23%	82,500
11	Kundang Estates	21.3	24%	4,351
12	Madge Mansions	0.2	10%	313
13	The Robertson	1.9	63%	634
14	twentyfive.7	17.7	10%	14,482
15	Valencia	101.3	35%	16,726
16	Yen So Park	236.6	42%	20,516
<b>Total</b>		<b>1,555.9</b>		<b>302,081</b>

Further information on our biodiversity-related efforts is provided in Pillar 3 on pages 118 to 123.

Percentage of landscape area = landscape area/development area.  
Landscape area includes green area, golf course, streetscape planting, and waterbody only.  
Ernst & Young has assured the percentage of landscape area for Jade Hills, Gamuda Gardens, and Gamuda Cove only.

To further mitigate the environmental impacts of our construction-related activities, we aim to better manage the GHG emissions through optimising the associated construction operations and minimising the embodied carbon in buildings from our material processing and construction. Moving forward, we will be reducing our embodied carbon through the following:



**Digital Industrialised Building Systems (IBS)**

Faster installation, reduce on-site work and construction waste



**Recycled Content Materials**

High recycled content rebar, aluminium and steel materials



**Regional Materials**

Locally manufactured materials and products to shorten transportation distance



**Concrete Usage Index (CUI)**

Optimise concrete mix to reduce the concrete usage

## SUSTAINABILITY REPORT

### SUPPORTING GREENER TRANSPORTATION

The daily movement of people to meet the necessities of working, recreation and living is a huge contributor to carbon emissions. That is why transportation and mobility are central considerations in sustainable developments.

Gamuda is at the forefront of enabling greener transport mobility to reduce emissions. The planning provision for smart infrastructure in our developments promotes low carbon mobility with increased public mode share at 70 percent compared with private mode share at 30 percent. This also includes the preparation for charging stations for electric vehicles (EVs) and increased cycling and walking modes.

Through our involvement as the project initiator and management of the Klang Valley Mass Rapid Transit (KVMRT) Projects, this is a greener mode of mass transit that is more affordable and accessible. Such leads to less congested roads and smaller carbon footprint for commuting Malaysians.

The MRT Putrajaya Line design is recognised by the Construction Industry Development Board (CIDB) of Malaysia with the achievement of a Five-Star Sustainable INFRASTAR certification for prioritising sustainability practices.

Zero-carbon transportation is a key feature of Gamuda Land developments. Our goal is to establish a cycling and pedestrian network of 250km within our developments to facilitate an ecologically friendly lifestyle among its residents. This is in addition to our masterplans being EV-ready with the implementation of the Green Transportation Mobility Plan via E-bus, E-tram, and E-bikes.

The masterplan for PSI has also set aside 20 percent for public open spaces comprising public parks, beaches and esplanades. This is accompanied with a comprehensive 140km network of well-shaded pedestrian and cycling paths complete with bicycle stations. This is part of the masterplan for PSI that aims for 80 percent reduction in transport emissions that puts low carbon mobility at the forefront.



Photo: MRT Kajang Line



**Five-Star Sustainable INFRASTAR certification from CIDB for MRT Putrajaya Line design**



Photo: Gamuda Gardens



Photo: Gamuda Cove

### ALLEVIATING ENVIRONMENTAL IMPACT BY REDUCING OUR EMISSIONS

Gamuda is dedicated to reducing our direct and indirect GHG emissions as outlined in the GGP 2025 and the national policy on energy and emissions matters. We set forth our emissions intensity reduction goal for Scope 1 and Scope 2 as 30 percent by 2025 and 45 percent by 2030.

For FY2021, the Group has increased the number of sites where our GHG emissions are tracked, reflecting the aim to ensure better transparency of our actual carbon footprint.

#### GHG Emissions

Total GHG Emissions for FY2021 in tonnes CO<sub>2</sub>e:



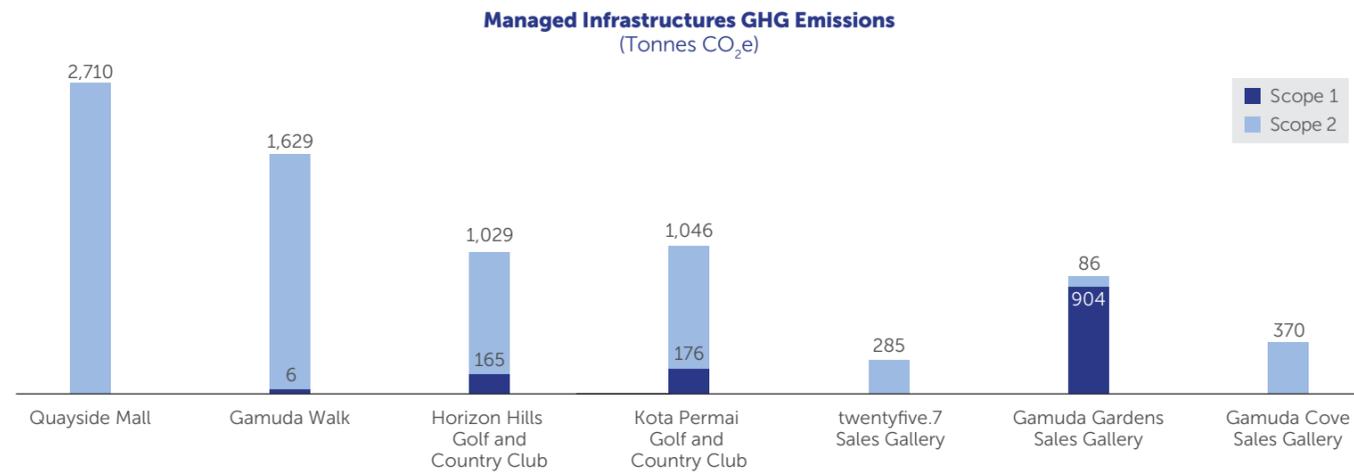
Managed Infrastructures consists of Quayside Mall, Gamuda Walk, Horizon Hills Golf and Country Club, Kota Permai Golf and Country Club, Sales Gallery – twentyfive.7, Sales Gallery – Gamuda Gardens, Sales Gallery – Gamuda Cove.  
 Construction Sites consists of MRT Putrajaya Line, Gamuda Gardens, Gamuda Cove, twentyfive.7, Jade Hills, Horizon Hills, PSI Site Office.  
 Operating Plants consists of Gamuda Digital IBS, Banting and Sepang factories. Methodology of calculation was in reference to GHG Protocol.

Construction sites remain the biggest contributor to our Scope 1 emissions as both petrol and diesel are consumed in the course of our building activities.

Gamuda measures its emissions based on the GHG Protocol Corporate Accounting and Reporting Standard (GHG Protocol) methodology and utilises the European Network of Construction Companies for Research and Development's Construction CO<sub>2</sub>e Measurement Protocol (ENCORD), which is a guide for construction companies.

SUSTAINABILITY REPORT

The total electricity consumption for Menara Gamuda, Managed Infrastructures, Construction Sites and Operating Plants in FY2021 was 22,111,360kWh



ENERGY EFFICIENCY AND ADOPTION OF RENEWABLES

Green electricity is the key to the world moving towards net-zero. The government and the energy commission have developed a roadmap (30 percent of the electricity generated to be from renewable sources by 2025 in Malaysia). To tackle climate change, it is a multi-pronged approach by both the public and private sectors.

Gamuda continues to make progress on its transition to RE. It started in 2020 with the installation of solar PV panels on the rooftop of Gamuda Gardens sales gallery and badminton hall, measuring 1,880sqm with a total capacity of 310.2kWh. Power generated is used to operate the central lake's fountain and waterfall, while excess energy is tapped to power the sales gallery. The installation has provided estimated energy savings of 250,000kWh annually and cost savings of RM90,000 per year.

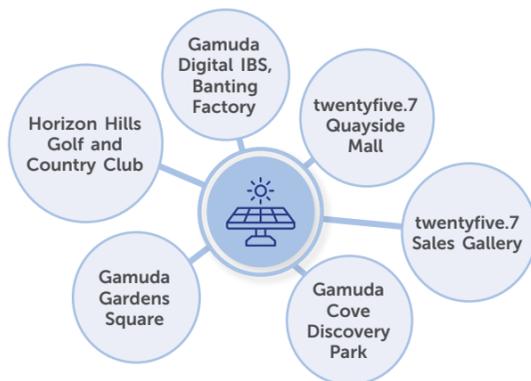
In FY2021, Gamuda installed 1,677 pieces of solar photovoltaic modules at the Celadon Sports and Resort Club in Vietnam. Covering 4,800sqm on the roof, the solar modules generate an average of 84,000kWh per month of clean energy for usage during the day time that reduces electricity consumption and GHG emissions, contributing to 40 percent savings in annual total electricity consumption.

In line with our GGP 2025 Pillar 1 commitment to reduce our CO<sub>2</sub>e emissions compared to BAU by 2030 across our developments, we will be installing solar panels across the following six developments in FY2022.

The Celadon Sports and Resort Club is the largest sports complex in the west of Ho Chi Minh City, and it is the first complex to operate entirely on solar energy. It stands as a beacon for the deployment of future sustainable energy solutions for Gamuda Land developments.

Feasibility studies and plans are being undertaken to expand the RE footprint in our existing developments and projects via progressive solar panel retrofits. In addition, we are actively exploring and accessing various renewable energy solutions and market available instruments and mechanisms to achieve our ultimate goal of 40 percent reduction in non-RE use by 2025.

Another commitment towards RE is reflected in the PSI, whereby its Green Tech Park is designed for 100 percent RE usage that is able to meet the estimated power requirement of 65MW.



MAXIMISING EFFICIENCY IN OUR WATER CONSUMPTION

Freshwater is a valuable resource. Various sustainable water consumption practices have been instituted in our developments. These include rainwater harvesting, using recycled lake water for irrigation, carefully selecting plants and shrubbery that require less water for landscaping and even installing water saving features across our developments.

Across Gamuda Land developments, all future high-rise and residential buildings, including commercial properties will have rainwater harvesting technology.

Moving forward, all landscape irrigation across Gamuda Land developments will be of non-potable water from rainwater harvesting technology. In plan to meet this by 2030, utilities retrofitting is being done.

For PSI, planning for reduction in freshwater demand starts with efficient water management from state-of-the-art dual-purpose sewerage treatment plant that recycles water for non-potable uses. This will augur an approximate reduction of freshwater demand by 70 percent.

Water Consumption Across Our Operations in FY2021



Managed Infrastructures consists of Quayside Mall, Gamuda Walk, Sales Gallery and Office – Gamuda Cove, Sales Gallery and Office – twentyfive.7, Kota Permai Golf and Country Club, Horizon Hills Golf and Country Club.  
Construction Site consist of MRT Putrajaya Line.  
Operating Plants consists of Gamuda Digital IBS, Banting and Sepang factories.

Recycled Water Across Gamuda Land's Construction Sites in FY2021

	Gamuda Cove	Jade Hills	twentyfive.7	Gamuda Gardens	Horizon Hills
Recycled Water (m <sup>3</sup> )	322,918	3,690	2,281	3,324	2,120

As stipulated under Pillar 1 of the GGP 2025, our ambition is to conserve freshwater by reducing consumption and increasing reuse and recycling. By the end of FY2021, we have recycled a total of 334,333m<sup>3</sup> of water across Gamuda Land's construction sites. In line with the requirements set out by the environmental regulators, MRT Putrajaya Line has placed water treatment plants at the construction sites. This is to ensure all 24 hours active sites' wastewater is treated before discharge. The treated water is used for wheel washing and other cleaning purposes. The average amount of water treated ranges from 10m<sup>3</sup> to 80m<sup>3</sup> per hour.



SUSTAINABILITY REPORT

PROMOTING CIRCULARITY IN OUR OPERATIONS THROUGH EFFICIENT WASTE MANAGEMENT

Solid waste is a growing problem in Malaysia. In a whole-life cycle concept, we have committed to reduce our waste to landfills at different stages. During the construction stage, we are adopting a circular construction approach by maximising the efficiency use of raw materials and resources, while reducing wastage throughout our operations with a target to reduce construction waste to landfill at 20 percent. At operational stage, a target of 50 percent reduction in landfill waste is set via the provision of extensive recycling and organic waste composting.

A recycling facility is established at each project site for the recovery of waste and reusing construction waste as landscape elements. This has reduced the overall quantity of waste sent to landfills. However, where unavoidable, waste is given to licensed third-party companies to process or dispose the waste responsibly.

The following tables outline Gamuda’s waste management efforts for FY2021.

Menara Gamuda

Waste Generation	Total Weight	Additional Disposal Information
Non-recycled Waste (scheduled waste)	0.038 tonnes	SW 109 – Used light bulbs, disposed by Department of Environment licensed contractor.
Recycled Waste	1.171 tonnes	Carton boxes and papers, collected by external recycling vendor.

Gamuda Digital IBS

	Steel Bars	Polyfoam	Hazardous Waste
Amount of Waste Generated	55.6 tonnes	6.3 tonnes	4.7 tonnes
Amount of Waste Reused or Recycled	55.6 tonnes (100 percent)	0.9 tonnes (14 percent)	–

Gamuda Digital IBS includes Sepang and Banting factories.

MRT Putrajaya Line



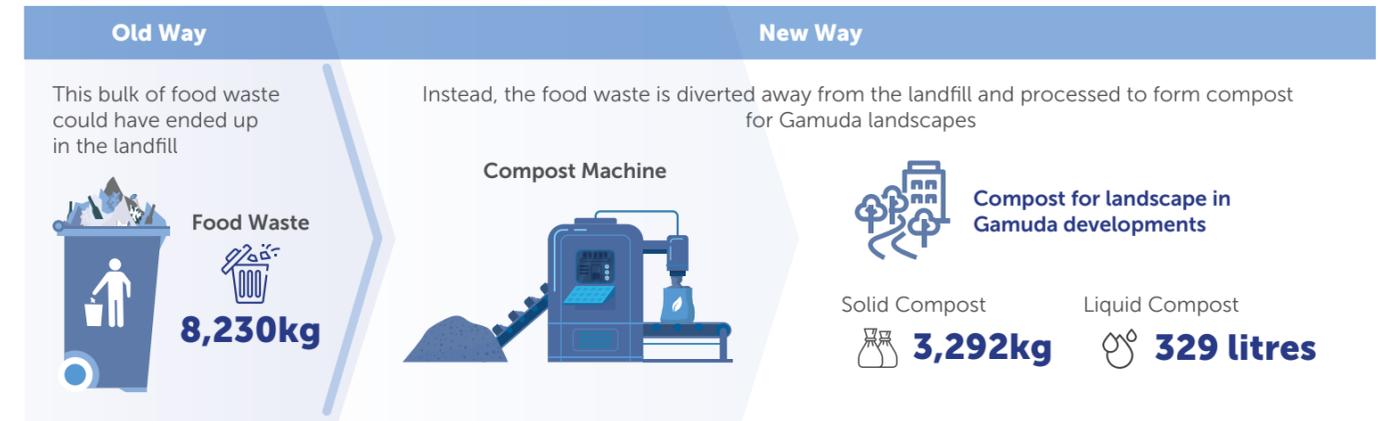
The amount of **scrap metal recycled** from MRT Putrajaya Line was approximately **370 tonnes** in FY2021



Photo: Gamuda Digital IBS operating machineries

Recycling Food Waste with Plate to Plant Programme

In 2020, Gamuda has launched its Plate to Plant Programme to repurpose food waste from Gamuda’s operations and developments. Food composting machines were installed at Menara Gamuda and Jade Hills development including future provision at Quayside Mall and clubhouses. This is supported by collection through composting trucks from our Compost-on-Wheels initiative, driving around Gamuda Land developments to collect food waste from residents and food and beverage establishments. In FY2021, we have collected 8,230kg of food waste to form compost for our landscapes across Gamuda developments.



Creating a Closed-Loop System for Garden Waste

Gamuda’s developments practice garden waste management through the creation of composting yards at Gamuda Land developments – Valencia, Bandar Botanic, Kundang Estates, Horizon Hills, Gamuda Gardens and Jade Hills, which encourages residents to contribute their garden refuse to be processed as compost. Bio-fertilisers are created from dead leaves and plants to fertilise the land, recycling our resources in a closed-loop system to support better soil health and plant growth.

Extending the Lease of Fabrics Life

Gamuda’s commitment to 6R practices as part of Gamuda Parks’ Sustainability Approach and Policy sees the Group setting up six fabric recycling bins at our developments and premises. This has saved 15,600kg of fabric waste from landfills, a 49 percent increase from FY2020, to be repurposed as cloth masks and pouches.



Photo: Compost product



Photo: Food waste compost machine

Pillar

2

# OUR COMMUNITY AND OUR BUSINESS

To equip ourselves with the right ESG knowledge, become Subject Matter Experts (SMEs) in our respective domains and cultivate good governance in ESG



## KEY CONTENTS FOR FY2021



Training individuals with **autism** (Enabling Academy)

Page 95



Gamuda Scholarship

Page 96



Recognising individuals for communal contribution – SGHA and GIA

Page 96



Engaging our communities

Page 98



Our human capital

Page 101



Our local supply chain

Page 100



Managing COVID-19 related impacts

Page 110



Safety and well-being of our people

Page 106



Promoting diversity and equal opportunity at the workplace

Page 102

Photo: Our employees at our construction site

SUSTAINABILITY REPORT

EMPOWERING OUR PEOPLE AND INVESTING IN OUR COMMUNITIES



Photo: Our engineers operating the Tunnel Boring Machine

**IT IS EVIDENT THAT TRUE PROGRESS IN ADVANCING SUSTAINABILITY, BE IT IN REALISING THE GAMUDA GREEN PLAN 2025 (GGP 2025) OR ACHIEVING THE UNITED NATIONS 17 SUSTAINABLE DEVELOPMENT GOALS, REQUIRES CONCERTED INVOLVEMENT OF MULTIPLE STAKEHOLDERS.**

Gamuda's environmental, social and governance (ESG) commitment goes beyond regulatory compliance as the Group continues to look into managing its social footprint in our journey of sustainable value creation. At Gamuda, we acknowledge that our people are our greatest assets. We place emphasis on equal opportunity and are committed to attracting, developing and retaining a diverse and inclusive workforce.

In response to the pandemic, all training and development content went virtual in FY2021. We ensure our people continue to upskill and reskill themselves to stay relevant and competitive. We also strive to go beyond to deliver shared prosperity and equity for all segments of society. This includes working with the indigenous communities of Malaysia, the *Orang Asli* and publication of a trainer's manual to equip special education teachers and practitioners in developing an Employment Transition Programme (ETP) for young adults with autism and other disabilities.

**Customer Satisfaction**

Customer satisfaction survey is a vital measure of our customers' experience in all our developments. Since 2020, we have decided to conduct an annual customer satisfaction survey. We want to ensure that our deliverables meet our customers' expectations while understanding the gaps for improvement. For FY2021, we have conducted customer satisfaction surveys across nine developments, namely Kota Kemuning, Valencia, Jade Hills, Kundang Estates, Horizon Hills, Bandar Botanic, HighPark Suites, The Robertson and Bukit Bantayan Residences with an average score of 85 percent. This exceeded our internal set target to achieve an average score of at least 70 percent. A popular feedback was on the integration of various features into Gamuda Land Lifestyle Mobile app platform including visitor management, payment of service charge and the dissemination of circulars and bulletins. We appreciate the meaningful feedback from our customers, resulting in a better understanding of their needs and improvement to our deliverables moving forward.

**Develop A Sustainable Pipeline of SMEs in Sustainability and Climate Science**

The success of the ESG agenda hinges greatly on technical expertise and experience that enable meaningful change and progress. Driven by this conviction, we continue to focus on developing ESG talent, particularly in-house Subject Matter Experts (SMEs), who undertake the delivery of the GGP 2025. Although the pandemic has put the entire world on an indefinite standstill, technology has been a key enabler for Gamuda to ensure business continuity and further advance our ESG agenda.

YAYASAN GAMUDA

The Group allocates around two percent of its profits annually to Yayasan Gamuda, which is primarily responsible for Gamuda's social initiatives. Yayasan Gamuda was established in 2016 to oversee the Group's charitable efforts while ensuring these initiatives are aligned with Gamuda's objectives for people development and community investment.

Annually, Yayasan Gamuda conducts three recurring anchor programmes. These are the **Enabling Academy, Gamuda Scholarship and the Star Golden Hearts Award.**



**Enabling Academy**



**Gamuda Scholarship**



**Star Golden Hearts Award**

**ENABLING ACADEMY – TRAINING INDIVIDUALS WITH AUTISM**

In 2017, Gamuda established the Enabling Academy (EA) to empower young adults on the autism spectrum to be gainfully employed. Gamuda remains the first corporate company to operate such ETP in Malaysia.

Since its inception, the EA has trained 66 candidates of which 80 percent have secured jobs. Importantly, the Group scrutinises the companies to ensure that the work environment and culture of these companies are supportive of individuals with autism.

Going further, the EA has made its training resources and materials available in the public domain without charges. The sharing of the intellectual property is intended to help develop more trainers and teachers in this niche field in Malaysia.

**National ETP Practitioner's Training to Impact Youths with Disabilities for Sustainable Employment**

The EA ETP Trainer's manual was endorsed by the Special Education Division (SED), Ministry of Education, Department of Polytechnics and Community Colleges Education (DPCCE), Ministry of Higher Education, Department of Social Welfare (DSW), Ministry of Women, Family and Community Development and Youth Skills Development Division (YSDD), Ministry of Youth and Sports, as a teaching guide for special education teachers, Technical and Vocational Education and Training (TVET) lecturers and practitioners nationwide to support the personal growth and professional development of students and trainees with disabilities.

In FY2021, the DSW and SED have sought continual collaboration with EA to equip students and trainees with disabilities for independent living and sustainable employment. Hence, the ETP Trainer's Manual was translated to Bahasa Malaysia and the first ETP Practitioner workshop in Bahasa Malaysia was conducted for Community-Based Rehabilitation Centres (CBRs).

The ETP has achieved further success with commendation by professors from the United Kingdom, Japan and China. Practitioners in Beijing and Shanghai collaborated with EA to translate the ETP Trainer's Manual to Chinese for circulation in China.

Moving forward, our key focus areas under EA will cover the following:

Establish a social well-being programme for alumni of EA

Expand our ETP international outreach in China, Taiwan, Hong Kong and possibly other countries in the Asia Pacific Region

Increase EA graduates employability to other industries (manufacturing, retail, food and beverage, education) and self-employment that matches our graduates' interest and aptitudes



**80%**

graduates secured and sustained jobs



**2,840**

local communities public awareness outreach – private and public sectors



**1<sup>st</sup>**

corporate company in Malaysia to establish and operate an ETP



Engaged **150** companies



**1<sup>st</sup>**

in Malaysia to publish an ETP Trainer's Manual

SUSTAINABILITY REPORT

YAYASAN GAMUDA



STAR GOLDEN HEARTS AWARDS

The Star Golden Hearts Award (SGHA) and Gamuda Inspiration Award (GIA) are joint initiatives by The Star Foundation and Yayasan Gamuda. These awards recognise individuals or groups for their outstanding service and contribution to society. In particular community work related to employment, entrepreneurship, youth empowerment, digital literacy, waste management, nature conservation, urban agriculture, ecotourism, community welfare, disabled with special needs, water and sanitation in rural and indigenous communities, and animal welfare.

Annually, 10 outstanding individuals or groups are chosen as award winners of the SGHA. In FY2021, we have awarded a total of RM50,000 to 10 outstanding winners of the SGHA 2021.



GAMUDA SCHOLARSHIP

The Gamuda Scholarship was established in 1996 to provide educational aid for young Malaysians to pursue their university education and sustainably contribute to community development. Since its inception, the programme has awarded 471 scholarships – providing hundreds of deserving young adults the opportunity to pursue tertiary education, and subsequently go on to successful careers in a wide range of professional fields.

Scholarships are offered to those pursuing courses in engineering, quantity surveying, development and urban planning, property and real estate management, and architecture. In this financial year, applications were extended beyond engineering-related courses to include environmental science, safety and health, landscape architecture, biodiversity management and horticulture.

We have doubled the scholarship quantum offered for the year with plans to increase the allocation for overseas studies and greater emphasis on students from low-income families. In FY2021, Gamuda awarded 27 scholarships, of which 24 were local and three were international scholarships with a cumulative value of RM3.9 million.

GAMUDA INSPIRATION AWARD

At Gamuda, we aim to empower people, facilitate community building and contribute towards socio-economic development through promoting sustainable livelihoods. The following timeline illustrates our GIA winners and their progress on social development.

**2021 WINNER**

- Crisis Relief Services and Training (CREST)**
  - Provide humanitarian assistance in the form of medical aid, food, water, clothing, and shelter to victims of natural disasters and crises situations
  - Conduct awareness and preparedness training programmes to train local volunteers, partners and the public on risk reduction, damage control and resilience to future disaster
  - Received double the amount of the prize money given the scale of its operation locally and internationally and majority of the crisis occurred due to global warming
- Suriana Welfare Society Malaysia (SURIANA)**
  - Essential interventions which prioritises children, single mothers and vulnerable persons
  - Appointed by the Department of Welfare to care for children who have lost their parents to COVID-19

**2020 WINNER**

- PWD Smart Farmability**
  - Food provision to 19,000 individuals with disability in collaboration with the Persatuan Orang Kurang Upaya (OKU)
  - Received accreditation by Malaysian Global Innovation and Creativity Centre (MaGIC) and matching grant from the National Economic Recovery Plan (PENJANA)
- Seven Tea One**
  - Empowered 21 differently-abled teens and B40 single mothers with skills development for employment
  - Offered a wider range of programmes such as flower arrangement skills, basic administration skills and handicraft

**2019 WINNER**

- Sujana Mohd Rejab**
  - Benefitted 20 children with disabilities with electronic prosthetic limbs
  - Ongoing collaboration with University Teknologi Malaysia to create robotic arms

**2018 WINNER**

- Umie Aktif**
  - Partnered with Jabatan Pembangunan Wanita (JPW) to develop various training programmes for single mothers
  - Exploring collaborative opportunities with the Russian Embassy and the Russian Community in Kuala Lumpur for single mothers empowerment

**2017 WINNER**

- Barefoot Mercy**
  - Assisted local communities in rural Sarawak in upgrading their water pipe systems
  - Facilitated Pfizer's annual health screenings programme among 500 villages from 13 communities in Sarawak

**2016 WINNER**

- Kedai Jalanan**
  - Ongoing projects during the onset of the pandemic:
    - Provided food aid to refugee centres and B40 communities
    - Distributed hygiene kits for the homeless at Jalan Panggong and B40 communities



SUSTAINABILITY REPORT

ENGAGING OUR COMMUNITIES

FISHERMEN AT PENANG SOUTH COAST

We believe that long-term, sustainable progress is achieved when there are mutually beneficial outcomes. In essence, Gamuda believes that socio-economic progress is sustained when communities also benefit from our business model and strategies.

The Penang South Islands (PSI) is a catalytic project that will drive the timely expansion for Penang2030. It stems from the State Government’s vision to revive Penang’s socio-economic situation and elevate the living standard of its residents. Aimed at creating equal opportunities, a central part of this project is to enable community involvement and job creation.



Photo: Engaging Fishermen on the PSI project

Pusat Perkhidmatan Setempat Nelayan

The Fishermen’s One-stop Service Centre (Pusat Perkhidmatan Setempat Nelayan or PPSN) serves as a direct engagement platform with the fishermen. The first PPSN was opened in 2016, and subsequently due to overwhelmingly positive response, the second PPSN was opened in 2017. The third PPSN, located at Sungai Batu opened its doors to serve the community in October 2021.

Through the PPSN, we are able to actively engage with the fishing community and other stakeholders for PSI. Close to 45,000 stakeholders have been engaged since 2015. The social impact from these engagements have brought valuable stakeholders insights as Community Participation Programme (CPP) is implemented.



Photo: PPSN Permatang Damar Laut



Photo: PPSN Gertak Sanggul

**Facebook:**  
<https://www.facebook.com/pusatperkhidmatansetempatnelayan>

**Hotline:**  
 1800 88 6393

**Email:**  
[ppsn@srsconsortium.com.my](mailto:ppsn@srsconsortium.com.my)

FOOD AID VIA GL CARES

GL Cares is a community initiative that began with a donation drive amongst Gamuda Land’s employees and business partners to fund food aid and distribution to those in need during the COVID-19 pandemic.

The main avenue in which the funds are utilised is the setting-up of food aid stations to serve the surrounding residents and workers at Gamuda Land developments, namely Gamuda Gardens, Kundang Estates, twentyfive.7, Gamuda Cove, Horizon Hills, Jade Hills and Bukit Bantayan Residences.

We collaborated with domestic suppliers like 99 Speedmart to support the replenishment of food aid stations. These food aid stations allow our community-in-need to have access to essentials such as rice, cooking oil, face masks, sanitiser, diapers and more. Food essentials were also sent to over 1,700 workers throughout Gamuda’s Centralised Labour Quarters (CLQs) to help them through these challenging times.



Photo: Local communities around Gamuda Land developments receive food aid supplies



Photo: In partnership with 99 Speedmart with Gamuda Land for food aid stations

**Key Highlights**



Approximately  
**RM266,000**  
contributed through GL Cares

---



Impacted approximately  
**4,080** people

---

Essential aid and food distribution to:



**Communities surrounding Gamuda Land developments**  
(including mosques and villages)



**Charity homes**  
(Old folks homes and orphanages)



**Indigenous communities**  
(Orang Asli)



**Non-governmental organisations (NGOs)**  
(including refugees)

---



**Centralised Labour Quarters**



Photo: Our employees distributing supplies at twentyfive.7

SUSTAINABILITY REPORT

CONTRIBUTING TO THE LOCAL ECONOMY THROUGH PROCUREMENT

**GAMUDA HAS ALWAYS PRIORITISED LOCAL SUPPLY CHAINS FOR ITS PROCUREMENT REQUIREMENTS. WE ARE ALIGNED WITH THE GOVERNMENT’S POLICY TO BUY LOCAL PRODUCTS AND SERVICES FIRST FOR OUR PROJECTS AND DEVELOPMENTS.**

Local procurement often translates to reduced environmental impacts (lower carbon footprint and resource consumption as opposed to sourcing from overseas suppliers) and increased business efficiency, given shorter supply chains.

In line with our commitments set out under the GGP 2025, Gamuda is motivated to procure locally as a wide range of socio-economic multiplier effects are then created for local businesses and the community. Prioritising local value chains stimulate entrepreneurial and job opportunities in the various locations that Gamuda operates. In addition, Gamuda supports small and medium-sized suppliers, vendors owned by women, owned by

or recruit workers from members of vulnerable, marginalised, and underrepresented social groups.

Procurement in Gamuda comes under the oversight of the Group Procurement Director. Gamuda’s approach to procurement is guided by the Group’s Procurement Policy. Procurement is also undertaken using the Group’s digital platforms – SAP Ariba, which support transparent and competitive procurement practices. These platforms enable Gamuda to provide a level playing field for suppliers intending to tender for projects (See Pillar 4 on pages 129 to 130 for more information).

PROCUREMENT PROCESS

Gamuda strives to procure product or services that have a lesser impact on the environment and are safe for our employees and communities. We engage with our suppliers to protect the integrity of our supply chain and ensure our practices are aligned with local and international regulations and standards.

The Group regularly assesses suppliers’ performance against a set criterion, which includes, but is not limited to, ISO 14001 certification, track record and environmental, health and safety culture. Potential suppliers are required to provide the Group with their policies, company code of conduct and sustainability certificate, where applicable.

As of the end of FY2021, the Group’s operation in Malaysia (excluding Gamuda Land, joint ventures and associate companies, except for MRT Putrajaya Line – included in the percentage) recorded 99.5 percentage of its procurement sourced from local suppliers, while Gamuda Land recorded 98.1 percent spending on local suppliers. Our performance exceeded our target of 95 percent spending on local procurement.

By the end of FY2021, we aim to introduce ESG evaluation in our procurement to drive sustainability awareness across our supply chains while developing strong alliances among vendors.

*Ernst & Young has assured local procurement data for Gamuda Group developments within Malaysia (excluding joint ventures) and MRT Putrajaya Line.*

Sustainability Within Our Supply Chains

**Gamuda’s suppliers (where relevant) are assessed based on a criterion that includes:**

- Implementation of Environmental Management Systems such as ISO 14001 within suppliers’ operations
- Suppliers’ experience in sustainable construction i.e. green buildings, Building Information Modelling (BIM) technology and smart cities for relevant projects
- Suppliers’ commitment and track record, as well as existing systems to safeguard workers’ rights, including no forced and child labour, and the prohibition of excessive working hours, as set by the law.



OUR WORKFORCE

**TALENT IS AT THE CORE OF OUR GROUP’S CAPABILITY TO CREATE VALUE. GAMUDA’S ABILITY TO CAPITALISE ON CAPABILITIES AND EFFECTIVELY REALISE THE GGP 2025 ASPIRATIONS ARE INTRINSICALLY LINKED TO OUR EMPLOYEES.**

Our success is heavily dependent on engineering excellence and expertise, which come from the competencies and experience of our workforce. New methodologies, ideas and innovation stem from our people. Hence, ensuring a high-calibre, professional talent pool is essential in driving our technological capabilities and retaining our position as a leader in the engineering, construction and property industry.

TALENT DEVELOPMENT AND INDUSTRY UPSKILLING

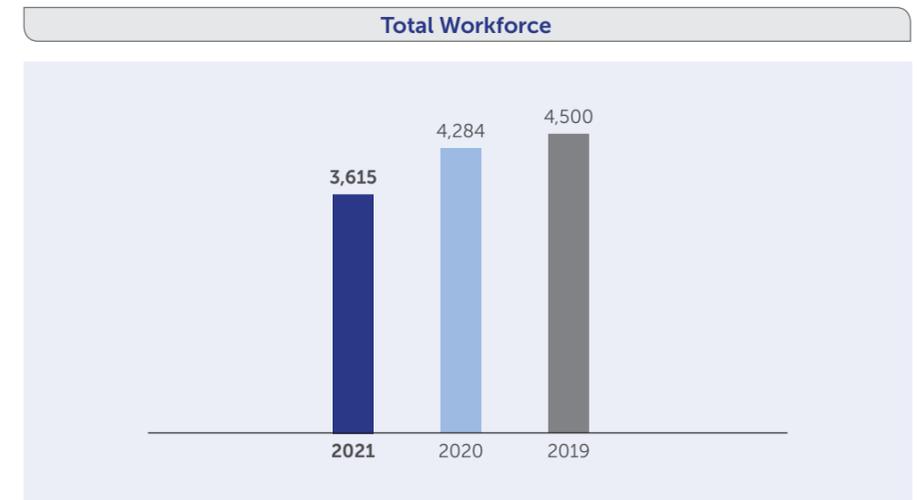
We develop our people and industry partners via continuous development programmes through our following training and learning centres:

- Gamuda Plant Operator School (GPOS)
- KVMRT Safety Training Centre
- Tunnelling Training Academy (TTA)
- Gamuda Parks Academy
- Construction Training Centre (CTC)
- Building Information Modelling (BIM) Academy
- Gamuda Learning Centre (GLC)
- English Language Unit (ELU)

OUR WORKFORCE STRENGTH

As of the end of FY2021, Gamuda has 3,615 employees across its operations. As the Group completes or nears completion of key infrastructure projects, the requirements for human resources or talent reduces as shown in the Group’s overall workforce in the last three financial years.

Total number of employees for FY2021  
**3,615**

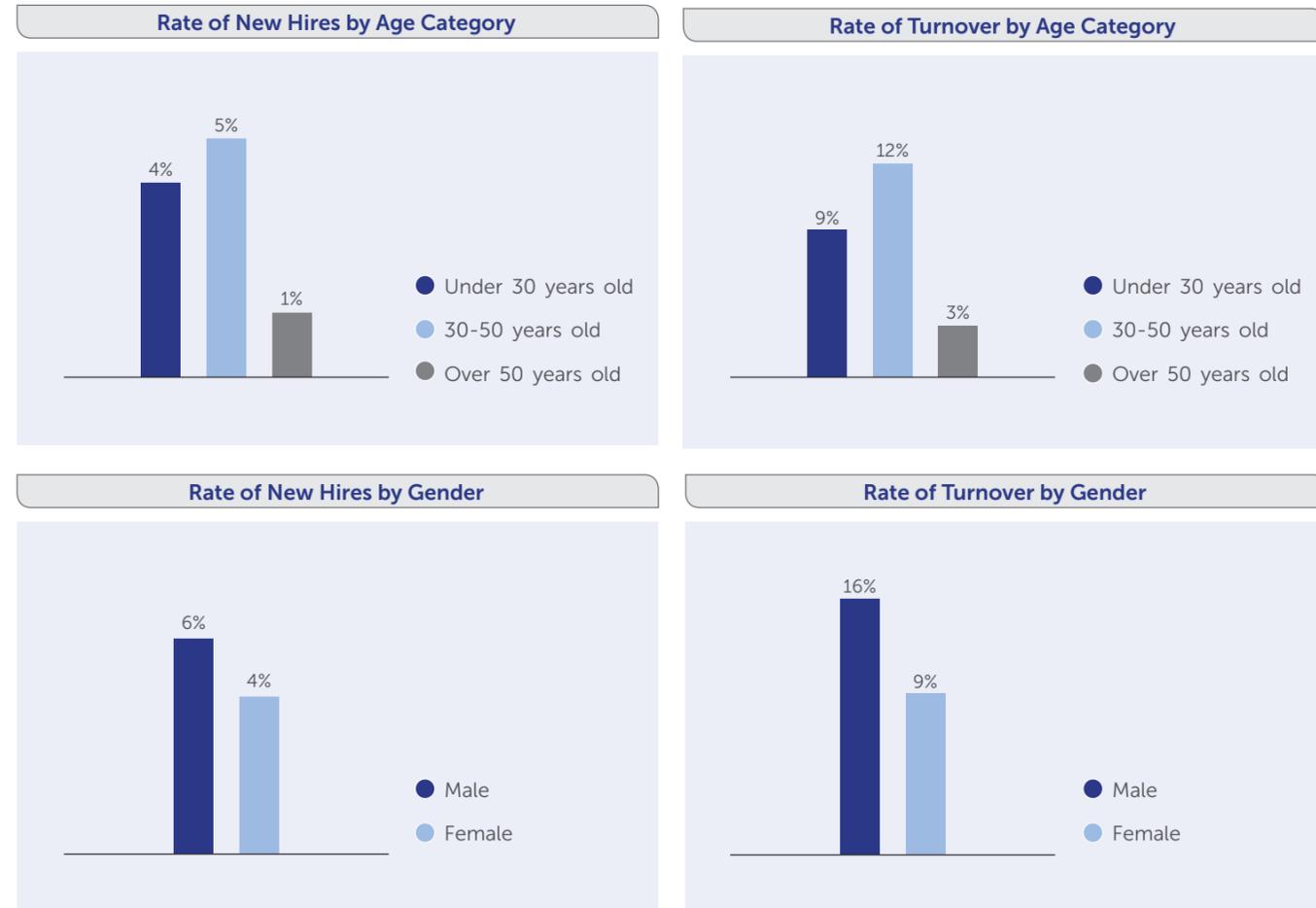


The total number of employees are excluding joint ventures and associates.

SUSTAINABILITY REPORT

NEW EMPLOYEE HIRES AND ATTRITION

In FY2021, the Group welcomed 322 new employees and recorded an average turnover rate and hiring rate at 12 percent and five percent, respectively. The turnover rate is consistent with the average turnover rate for the past four financial years.



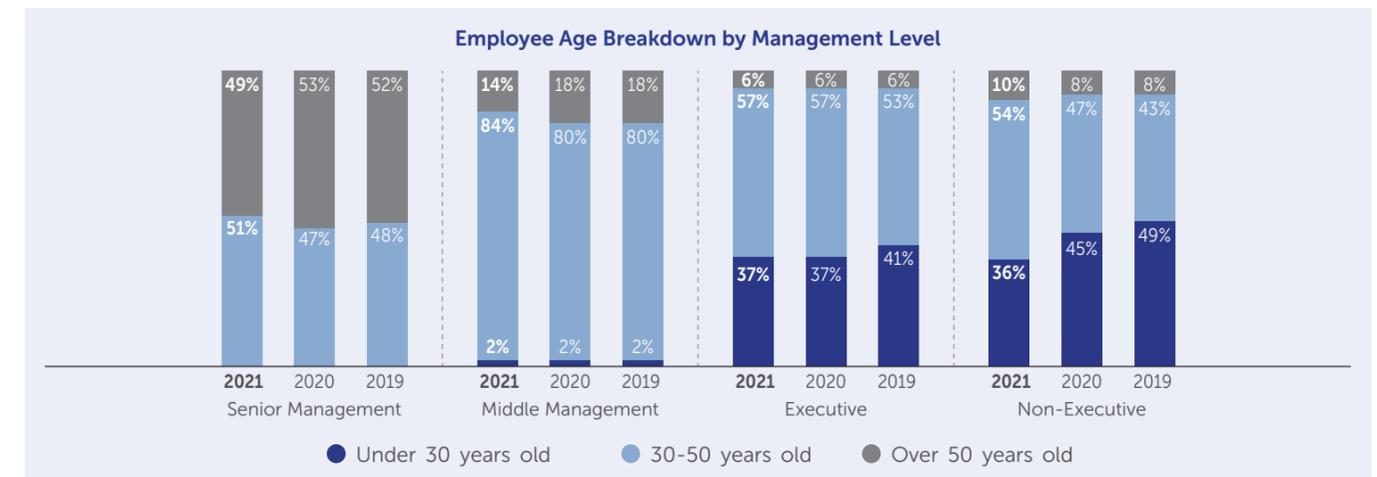
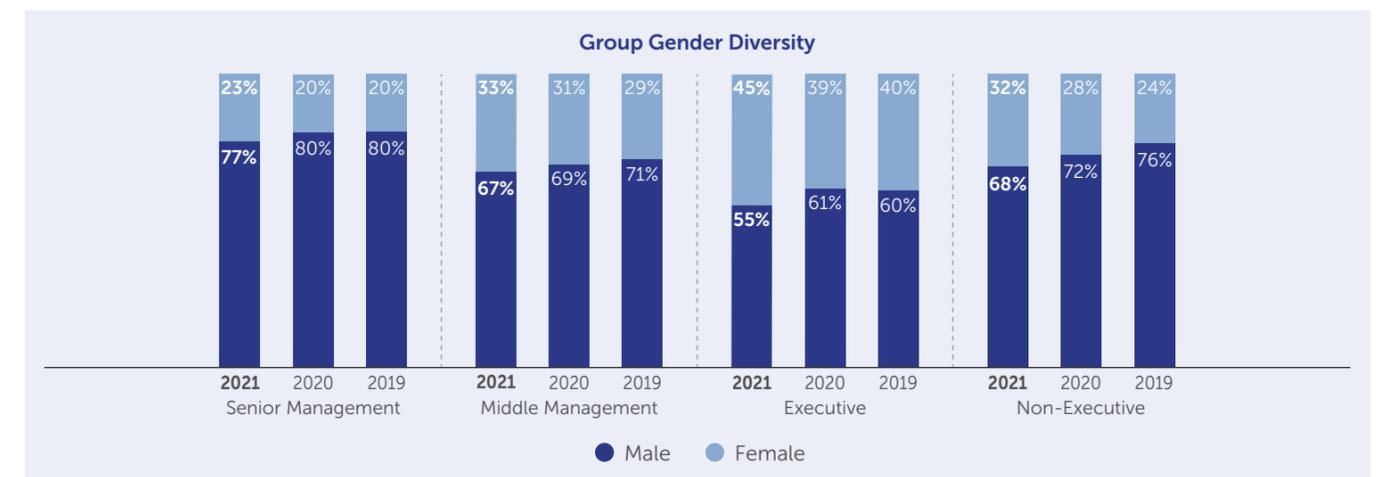
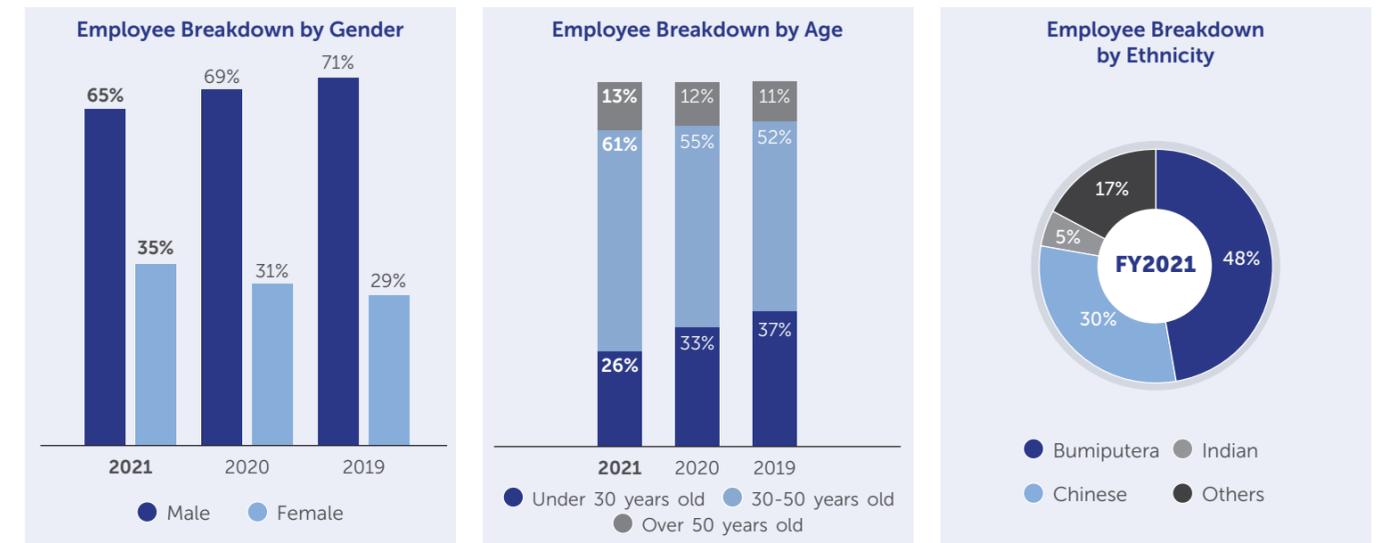
The rates presented exclude employees from joint ventures, associates and all overseas companies except Australia. The total number of employees accounted for is 2,895. Ernst & Young has assured the numbers and rate of employee hires and turnover by age group and gender.

PROMOTING DIVERSITY AND EQUAL OPPORTUNITY AT THE WORKPLACE

Gender diversity is reflected across the Group's management levels and continues to have increased balance over the years. Currently, leadership positions that includes the executive directors of Gamuda Engineering and Gamuda Land, Heads of Group Human Resources and Administration, Group Corporate Communications and Sustainability, Legal and Company Secretarial, and the Integrity and Governance Unit (IGU) are headed by women.

Gamuda practices the principle of reward-based on meritorious performance with no discrimination towards race, religion, age, sexual orientation, disabilities, nationality and other demographic factors in the process of employee hiring, employee benefits, appraisal, remuneration and promotion. In FY2021, there were zero incidents of discrimination.

**Women representation in Gamuda:**  
**43%**  
Board level



## SUSTAINABILITY REPORT

### Initiatives to Attract and Retain Women Employees

Since 2018, the Gamuda Women Empowerment Network (GWEN) was established to support women employees by providing opportunities for development and career advancements.

Through Women@Work Initiative, women are provided extended maternity leave and flexible working arrangements to support the needs of working mothers.

### Gender Diversity and Inclusion for a Fair Business Environment Regional Report Series

The United Nations Development Programme (UNDP) commissioned the Gender Diversity and Inclusion for a Fair Business Environment knowledge series that explores gender equality and fair business across five ASEAN countries. We are privileged that UNDP invited the Group to contribute to this regional report. Initiatives such as GWEN and women-centric benefits has been highlighted in the report.

### MINIMUM WAGE

At Gamuda, we fully comply with the Malaysian government's minimum wage policy and we are committed to meeting the minimum wage required to meet living wage standards. All full-time employees of Gamuda earn equal to or more than the stipulated RM1,200 per month minimum wage as set out by the Government of Malaysia.

### EMPLOYEE COMPENSATION AND BENEFITS

Our full-time employees refer to those working on a permanent or contract basis with Gamuda only, excluding our joint ventures and associate companies.

In April 2021, Gamuda further enhanced its employee benefits programme, Flexi-Wellness Benefits (FWB) to cover family members for COVID-19 diagnostics tests. Besides, we also revised our compensation policy to ensure an adequate minimum payout to the beneficiaries upon the death of an employee and streamlined the benefit entitlement criteria for different demographics.

The COVID-19 pandemic has further accelerated the implementation of flexible working arrangement, in which remote working has been a key aspect. In FY2021, we have included new benefits such as home internet connectivity and provision of home-office furniture to support our employees in adjusting their homes into a more productive setup.

Types of benefit	Details
Leaves	Annual Leave, No Pay Leave, Sick or Hospitalisation Leave, Marriage Leave, Paternity Leave, Maternity Leave, Family Care Leave, Examination Leave, Compassionate Leave, Prolonged Illness Leave, Replacement Leave and COVID-19 Vaccination Leave
Flexi-Wellness	Outpatient, Additional Pre and Post Natal Expenses, Annual Medical Check-up, Wellness Membership, Optical, Dental, Vaccination
Allowance and Subsidy	Professional Membership Subsidy, Childcare Subsidy, Business Travel Reimbursement (BTR)
Insurance	Group Term Life Insurance, Hospitalisation and Surgical Insurance, Personal Accident Insurance
Flexi-Work Arrangement	Staggered Working Hours, Flexi Time, Seasonal Flexi-Time, Flexi Place, Flexi Lunch Hours, Replacement Hours, Work from Home (WFH)
Others	Car Park Facility, Retirement Benefits, Bona Fide Benefits, Employee Education Assistance, Work from Home Assistance (Wi-Fi, Broadband Subscription, Mobile Data Top Up, Home-Office Furniture)

### Number of Employees Utilised Parental and Family Care Leaves

	 Paternity Leave	 Maternity Leave	 Family Care Leave
2021	87	69	551
2020	86	84	397
2019	77	64	227

As a family-friendly company that promotes work-life balance, we have in place paternity, maternity, family care leave and benefits, to rebalance the distribution of work and care within families. Additional leave is also granted to employees when they or their family member goes for COVID-19 vaccination.

### EMPLOYEE APPRAISALS

Employee performance appraisals is an avenue for employees to provide feedback to management on areas they believe that the company can improve on, facilitate their career development,

recognise and reinforce strong employee performance, and encourage personal development and career growth. As part of the appraisal process, employees are assessed based on self and peer evaluation, as well as assessment by a supervisor. This provides a more balanced and fair evaluation of the employee's conduct and performance.

### SAFEGUARDING EMPLOYEES AND WORKERS RIGHTS

At Gamuda, we are committed to respecting and championing human rights in our own operations and through our broader relationships. We comply with the Malaysian Employment Act 1955 and all other relevant local laws and regulations. This is in line with the statutes stipulated by the International Labour Organisation (ILO) and the Universal Declaration for Human Rights.

We are currently drafting our Human Rights and Modern Slavery Policy to integrate respect for human rights into our operations.

We provide working conditions aligned with international best practices and with respect to human and labour rights. This includes the provision of CLQs that exceed regulatory standards. Our workers can look forward to hot showers, clean and comfortable accommodation, kitchenette facilities and amenities to make daily living convenient, including access to healthcare.

In FY2021, there were no reported incidents or issues pertaining to violations of human rights.



Photo: Our employees working on-site

SUSTAINABILITY REPORT

SAFETY AND HEALTH

**THE IMPORTANCE OF SAFETY AND HEALTH TO GAMUDA'S OPERATIONS CANNOT BE OVEREMPHASISED. EXEMPLARY SAFETY AND HEALTH IS VITAL IN KEEPING ALL STAKEHOLDERS SAFE. THIS INCLUDES GAMUDA'S EMPLOYEES, SUBCONTRACTORS, THIRD-PARTY WORKERS AND THE PUBLIC.**

The safety and well-being of stakeholders remains a key priority for us. We have a duty of care towards all of our stakeholders and continue to maintain a strong safety culture to achieve our zero work-related injuries goal.

The Group adheres to the Malaysian Occupational Safety and Health Act 1994, Factory and Machinery Act 1967, legal and other requirements, guidelines and Codes of Practice.

Gamuda's Group ESG Policy Statement outlines relevant processes and approaches that set high safety and health standards. We have also enhanced our workplace standards of safety and health by adopting the Australian standard.



**→ 100% OF GAMUDA'S OPERATIONAL SITES ARE CERTIFIED WITH ISO 45001**

**→ GAMUDA'S SAFETY AND HEALTH TARGET:**  
Zero work-related injuries

**BOARD OVERSIGHT OF SAFETY AND HEALTH**

Gamuda's Board of Directors (Board) and its Senior Management including Board and Senior Management of subsidiary companies, have oversight safety and health, and affirmed the Group's Quality, Safety, Health and Environment (QSHE) Policy.

Regular safety and health reports are provided to both the Board and Senior Management, which provide data and information on lost time injuries (LTIs), fatalities, injuries, near misses, non-compliance issues and other safety and health key performance indicators (KPIs). Reports also provide the root causes of incidents and remedial and/or preventive action taken to reduce or eliminate future occurrences.



**KEY ASPECTS OF THE SAFETY AND HEALTH MANAGEMENT APPROACH**

Gamuda adheres to stringent safety requirements especially for all the high-risk activities at our construction sites such as working at heights, crane and lifting operations, plant and machinery management to reduce the number of accidents. Our Australian operations are subject to stringent inspection by the Office of the Federal Safety Commissioner (OFSC).

Lessons learnt approach and thorough investigation are adopted to reduce incidents and improve the safety and health practices gaps. The investigations are reported to Senior Management where improvements to work processes will be evaluated. Safety and health-related statistics are shared monthly, and we have dedicated Safety and Health Teams at our headquarters (HQ) and project sites.

We have digitalised safety and health monitoring, evaluation and performance analysis using Fieldview and Tableau. We started using Fieldview for Safety, Health and Environment (SHE) Inspection and expanded to internal audit, Permit-To-Work (PTW) implementation, plant and machinery inspection and site daily progress report.

Safety and health is viewed as the responsibility of all employees with performance KPIs established.

The scheduled safety and health inspections are performed at operational sites:

- Daily and weekly inspection
- SHE committee inspection
- Monthly inspection by SHE personnel at project site
- Internal audit by HQ
- External audit by a certification body i.e. Standard and Industrial Research Institute of Malaysia (SIRIM)
- Inspection by the OFSC - applicable to operations in Australia
- Third-party inspection by external party
- Safety and Health Assessment System in Construction (SHASSIC) assessment

**SHE COMMITTEE**

Every project site has a dedicated SHE committee responsible to implement safety and health initiatives and to monitor performance. Meetings are held monthly to ensure effective Hazard Identification, Assessment of Risk and Opportunity, and Controls (HIAROC) process implementation.

Committees typically comprise management and non-management employees. Through this approach, Gamuda has achieved worker representation on formal joint management-worker SHE committee.

**INCIDENT INVESTIGATION AND RESOLUTION**

At all operational sites, Gamuda implements an incident investigation and reporting procedure. The procedure is based on using a root cause analysis process to determine the underlying factors behind the incident.

All incidents are thoroughly investigated by trained personnel and preventive or mitigative actions are implemented. All root causes of incidents are logged into the incident register for review and action tracking.

The key insight from the incident is shared to all employees towards preventing reoccurrence via:



**SAFETY AND HEALTH PERFORMANCE**

In FY2021, Gamuda continues to record an exemplary performance of safety and health with many sites across Gamuda Land and Gamuda Engineering, including Menara Gamuda - reporting zero fatalities, accidents or lost time injuries.

**Menara Gamuda**

	Menara Gamuda*
Total Man-Hours Worked	1,399,464
Number of Fatality	0
Number of Reportable Injury	0
Number of Day Lost	0
Rate of Fatality	0
Injury Rate	0
Rate of Lost Day	0
Lost Time Injury Frequency Rate (LTIFR)	0

*\*Ernst & Young has assured safety and health performance data.*

*Note:  
All safety and health data were calculated based on Global Reporting Initiative (GRI) recommended rates (per 200,000).  
LTIFR was calculated based on Construction Industry Standard, Australia - 8.0 (per 1,000,000 workers).*

SUSTAINABILITY REPORT

Gamuda Land

	Gamuda Cove	twentyfive.7	Gamuda Gardens*	Jade Hills	Horizon Hills	Bukit Bantayan Residences
Total Man-Hours Worked	2,065,877	1,949,994	2,178,979	624,276	121,234	127,690
Number of Fatality	0	0	0	0	0	0
Number of Reportable Injury	0	0	0	0	0	0
Number of Day Lost	0	0	0	0	0	0
Rate of Fatality	0	0	0	0	0	0
Rate of Injury	0	0	0	0	0	0
Rate of Lost Day	0	0	0	0	0	0
LTIFR	0	0	0	0	0	0

\*Ernst & Young has assured safety and health performance data for Gamuda Gardens' Phase 3A and 3B which covers 421,776 and 711,050 working hours, respectively.

Gamuda Engineering

	IBS Banting*	IBS Sepang*		MRT Putrajaya Line*
Total Man-Hours Worked	459,264	111,904	Total Man-Hours Worked	17,051,700
Number of Fatality	0	0	Number of Fatality	0
Number of Reportable Injury	1	0	Number of Reportable Injury	33
Number of Day Lost	1	0	Number of Day Lost	176
Rate of Fatality	0	0	Rate of Fatality	0
Rate of Injury	0.44	0	Rate of Injury	0.39
Rate of Lost Day	0.44	0	Rate of Lost Day	2.06
LTIFR	2.18	0	LTIFR	1.94

\*Ernst & Young has assured safety and health performance data.

Note: MRT Putrajaya Line refer to our Underground sites.  
\*Ernst & Young has assured safety and health performance data.

Note:  
All safety and health data were calculated based on Global Reporting Initiative (GRI) recommended rates (per 200,000).  
LTIFR was calculated based on Construction Industry Standard, Australia – 8.0 (per 1,000,000 workers).

Our rate of injury at MRT Putrajaya Line has improved from 0.51 in FY2020 to 0.39 in FY2021. For more information about our FY2020 safety and health performance, please visit <https://gamuda.com.my/sustainability-esg/>

SAFETY AND HEALTH PROGRAMMES AND TRAINING

We continue to invest in safety and health-related training for our employees and value chain as their awareness, knowledge and skills are crucial in ensuring excellent safety and health performance. Often incidents arise due to human error or ignorance and hence, ensuring that our people are regularly trained is essential to avoiding mishaps.

KVMRT Safety Training Centre

Developed together with Construction Industry Development Board (CIDB) and National Institute for Occupational Safety and Health (NIOSH), the KVMRT Safety Training Centre continues to distinguish itself as a pioneering institution towards elevating safety and health performance in Malaysian construction sites.

Specifically, the centre provides competency and safety training for specific high-risk jobs and electrified rail infrastructure construction. Working at height and crane operation are among the specific high-risk job training offers. Training is carried out in collaboration with CIDB and NIOSH, based on an enhanced safety and health programme.

The centre provides free training and paid courses. For example, free courses are offered to crane operators to ensure they are competent to manoeuvre a crane during lifting, as crane operating is considered one of the most high-risk activities in construction.

Training Module	Number of Participants Attended
Black Card training	1
Blue Card training	3,951
Construction Skills Certification Scheme (CSCS) examination	216
Gold Card training	269
Grey Card mobile elevated working platform	180
Grey Card training (mobile/crawler crane)	4
Grey Card training (electrical safety)	89
Grey Card training (excavator operator)	26
Grey Card training (forklift)	7
Grey Card training (lifting planner)	20
Grey Card training (lifting supervisor)	86
Grey Card training (lorry crane operator)	8
Grey Card training (roller compactor)	17
Grey Card training (scaffold awareness)	57
Grey Card training (sky lift)	19
Grey Card training (slinger and banksman)	67
Grey Card training (temporary works inspector)	3
Working at height	1,374
<b>Grand Total</b>	<b>6,394</b>

Note:  
Blue Card – Project induction that is mandatory for all personnel levels directly involved in the MRT Putrajaya Line.  
Gold Card – For supervisors and above where they are responsible to lead a team.  
Black Card – Most Senior Management Level i.e. Project Directors and Chief Executive Officers (CEOs).  
Grey Card – Training for high-risk activities facilitated by specialist and Master Trainers.

SUSTAINABILITY REPORT

**OUR APPROACH TO COVID-19**

**THE ONSET OF COVID-19 HAD CAUSED SIGNIFICANT DISRUPTIONS TO ENSURING BUSINESS CONTINUITY AND SAFEGUARDING OUR EMPLOYEES AND SITE WORKERS, GAMUDA WAS PROACTIVE AND MOVED SWIFTLY TO ADAPT TO ALTERED OPERATING CONDITIONS AMIDST THE NEW NORMAL.**

Gamuda has set up a Triage Centre in providing care to positive COVID-19 patients who are in Category One and Two. Category Three, Four and Five cases are transferred to government medical facilities as per the SOPs set out by the Ministry of Health (MoH).

**ESTABLISHING GOVERNANCE AND LEADERSHIP IN MANAGING COVID-19**

We launched our COVID-19 Vaccination Policy in September 2021 to provide a safe and healthy working environment and to control the spread of COVID-19 in the workplace. The policy illustrates the standard operating procedures (SOPs) and measures for all categories of fully vaccinated, partially vaccinated and non-vaccinated employees of Gamuda.

In providing leadership and good governance to addressing COVID-19 related impacts, we have established our COVID-19 Steering Committee in February 2020.

Gamuda also updated our Emergency Response Plan with the inclusion of COVID-19 as a potential emergency. This was followed by the development of a business continuity plan in relation to the pandemic.

Regular operational process guidelines were updated to incorporate pandemic related SOPs, including maintaining records of employees' vaccination and testing status on the Group-wide COVID-19 centralised database. Employees who do not comply will be barred from accessing our offices and operational sites.

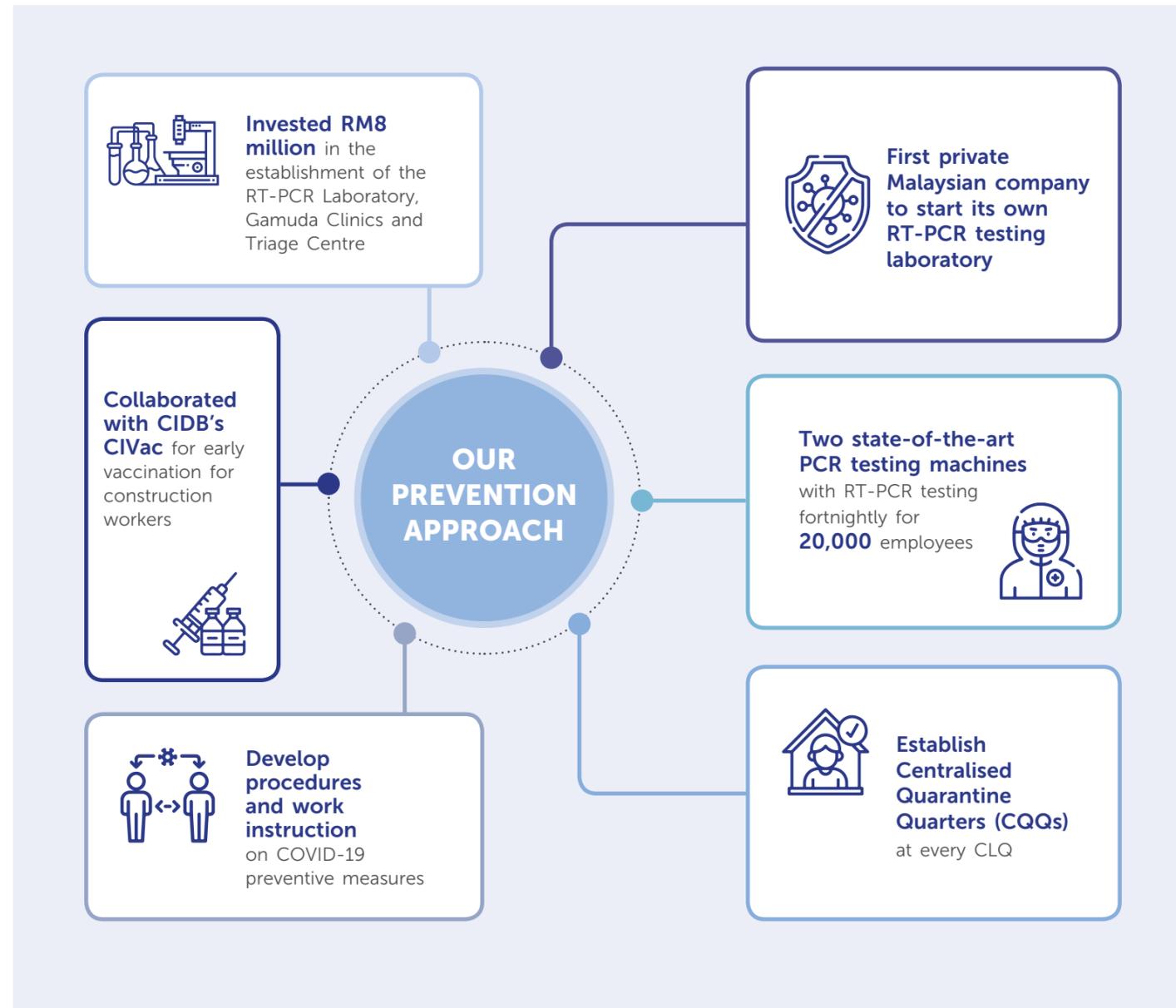
Gamuda also provided full support to CIDB's Construction Industry Vaccination Programme (CIVac) towards ramping up vaccination rates of workers and employees.

**SETTING-UP OUR IN-HOUSE LABORATORY**

Our laboratory houses two state-of-the-art testing machines with a combined capacity of processing 13,000 samples a week. RT-PCR and RTK Antigen testings of all our workers and employees were conducted regularly, and continue to be performed with 20,000 employees tested fortnightly.

We have trained and qualified medical team consisting of a virologist, 12 doctors and 30 medical laboratory technologists. Our laboratory uses real-time TaqPath by ThermoFisher RT-PCR assays for comprehensive detection of viruses, which is regarded as the gold standard for testing.

Suspected and confirmed positive COVID-19 cases are brought immediately to attention of the leadership structure, including the actions taken to contain the spread and to ensure the well-being of affected members.



**GROUP-WIDE COVID-19 DIGITAL DATABASE INTEGRATION AND APPLICATIONS FRAMEWORK**

**External Data Input**

COVID-19 Management SOPs and Policy will cover the need for our employees to:

- Submit all external test results to RT-PCR Laboratory for verification and to be uploaded into our common database
- Be fully vaccinated

**Gamuda COVID-19 Centralised Database**

Vaccination Record	Test Results RTK Antigen RT-PCR Elisa Antibody	Triage Centre
--------------------	---	---------------

**Applications**

Group-wide Access Control		Positive Case Management
Safe Entry	Access Denied	
Fully vaccinated	Unvaccinated	Site will be notified via system of positive cases detected
Tested negative in their last scheduled routine test	Workforce who missed their routine test will have their access code status turned red and access denied	Triage Centre will be notified about Category One and Two cases
		All patient care-related data will be tabulated to our COVID-19 database for monitoring

## SUSTAINABILITY REPORT

### CENTRALISED QUARANTINE QUARTERS

In line with our commitment under Pillar 2 of our GGP 2025 to implement Gamuda standard design for workforce accommodation prioritising well-being with 50 percent more provision of liveable space, CQQ blocks were constructed within each of the four CLQs that cumulatively house 6,000 workers. The CQQs were established in accordance with the MoH guidelines.

It was set up to serve as facilities to quarantine Patients Under Investigation (PUIs) while they wait for confirmation on their COVID-19 status. Gamuda also secured dedicated ambulances for COVID-19 emergency response, to prepare for any eventualities, which also reduces the burden on the public healthcare system.



Photo: Our Centralised Quarantine Quarters

### PERFORMANCE AND RESULTS

Through our in-house RT-PCR testing facility, CLQs and CQQs, Gamuda has succeeded in reducing the number of COVID-19 infection cases within our workforce.

Despite the nationwide prevalence of COVID-19 cases and disruptions caused, we are on track to deliver MRT Putrajaya Line on schedule, with Phase One opening to the public in November 2021. The proactive measures taken by the Turnkey Contractor, MMC-Gamuda to implement a 'new normal ecosystem' successfully brought down the COVID-19 cases in MRT Putrajaya Line.

Gamuda is fully compliant with the Government's SOPs and guidelines at Menara Gamuda and at all project sites. This includes screening and vaccination of all employees and workers, mandatory practice of physical distance, personal hygiene and other measures.

Gamuda's commitment in adhering to the SOPs has enabled our project sites to obtain special government (Ministry of International Trade and Industry or MITI) approval to continue operating during the respective Movement Control Orders (MCOs) at selected KVMRT Project (Underground) sites with stringent adherence to SOPs.

### GAMUDA CLINICS – HEALTHCARE FOR THE COMMUNITY

The success of our RT-PCR Laboratory has paved the way for Gamuda to play an even bigger and direct role in controlling the spread of COVID-19 within the community.

Gamuda will soon be launching Gamuda Clinics at two locations. The provision of these clinics will provide our employees with high quality healthcare and offer the public with convenient and affordable outpatient medical services. Services range from vaccination, health assessment, medical treatment, disease screening, rehabilitation, emergency and preventive care.

## TRAINING AND DEVELOPMENT

### ACADEMY FOR CRANE OPERATORS VIA GPOS – CIDB AND DOSH ACCREDITED

Gamuda Plant Operator School (GPOS) was established in 1997 to streamline different competency levels of earthmoving plant operations in Malaysia. It remains the only private training academy for crane operators in the country.

The school develops plant operators' capabilities in three specific areas: skills competency, safety awareness and youth apprenticeship programmes.

These programmes enable plant operators to obtain Certificates of Competency that are recognised by government regulatory

bodies such as the Department of Occupational Safety and Health (DOSH) and CIDB. This is significant as the Malaysian government only permits Malaysians registered with DOSH to be trained as crane operators.

Since its establishment, GPOS has produced more than 45,000 trainees in crane and earthmoving plant operation, and safety and health programmes. As many as 75 percent of Malaysia's certified crane operators are GPOS trained. GPOS consist of in-house DOSH approved trainers.

### DEVELOPING SPECIALIST SKILLS VIA WORLD'S FIRST TTA

Launched in 2011, Gamuda's Tunnelling Training Academy (TTA) is the first academy that develops niche talent for the highly specialised field of tunnel construction. It is the world's first learning institution specialised in Tunnel Boring Machine (TBM) technology. A joint venture between Gamuda Berhad and MMC Corporation Berhad, the TTA was set up to address the shortage of a competent, local workforce for tunnelling works.

We have planned to further enhance our TTA courses by collaborating with industry experts, Bosch Rexroth and Schneider Electric Malaysia to meet local and international tunnelling construction requirements.



### Gamuda Engineering signs Memorandum of Understanding (MoU) with Bosch Rexroth and Schneider Electric Malaysia to Enhance Workforce Digital Skills and Embrace IR 4.0

Guided by the Group-wide GGP 2025 with commitments to enhance digitalisation and people development, Gamuda Engineering has collaborated with Bosch Rexroth and Schneider Electric Malaysia to support its workforce in developing workflows and business models needed in the new era of increased digitisation, in line with Malaysia's Digital Economy (MyDIGITAL) Blueprint and the National Fourth Industrial Revolution Policy (National 4IR Policy).

As part of the partnership with Bosch Rexroth, selected trainees have trained to become certified training instructors and deliver Bosch Rexroth certified training worldwide with the license to award the trainees with Bosch Rexroth-approved certificates.

Gamuda Engineering leverages on Schneider Electric's expertise by expanding on collaborative research and development (R&D) to utilise the latest technology and integration, especially in tunnelling and underground works.

RM10 million was invested to set up the TTA academy in Selangor. The TTA works closely with the Ministry of Education, Ministry of Human Resources and the Ministry of Youth and Sports and leading the Technical and Vocational Education and Training (TVET) institutions in the country such as Institut Latihan Perindustrian (ILP) and Akademi Binaan Malaysia (ABM) to select academy candidates. TTA students first undergo theory and simulator training at the academy and they will subsequently be posted to KVMRT job sites including Malaysia's first TBM Refurbishment Plant located in Perak.

### EMBRACING DIGITALISATION VIA BIM ACADEMY

Gamuda's focus on embracing digital construction is further enhanced by our training and development programmes, which include the Building Information Modelling (BIM) Academy.

This enables a significant move up the value chain for the local construction sector as local talent become more skilled and accustomed in utilising new technologies and are ready for the digitalisation of the Fourth Industrial Revolution (IR 4.0).

Our BIM Academy uses an online core BIM e-learning skills module to support classroom technical training. This initiative will see more than 1,000 employees and subcontractors trained in BIM software between 2020 and 2022.

SUSTAINABILITY REPORT

**ACCREDITED CONSTRUCTION COURSES VIA CTU**

The Construction Management Programme (CMP) is conducted via the Construction Training Unit (CTU) to boost the quality of Gamuda’s project managers by exposing real site work activities to train young site supervisors and engineers. This programme module aligns to internationally benchmarked construction skill requirements adopted from best practices in Australia, Europe and Singapore. The programme also received accreditation from CIDB for the modules within the CMP courses. This is to provide a springboard to the trainees’ careers while ensuring their quality of deliverables in the dynamic construction industry.

In FY2021, we have conducted a total of five CMP sessions, focusing on three modules, namely Civil and Structural, Building and Architectural Works, and Mechanical and Electrical courses.

*Ernst & Young has assured the type and scope of programmes conducted via CTU.*



*Photo: G Parks Rangers educating young children about nature*

**GAMUDA PARKS ACADEMY**

Promoting environmental awareness and inculcating an appreciation of nature among the future generation, the Gamuda Parks Academy was established towards educating and inspiring children aged five to 12 years old.

One of the academy’s initiatives is the G Parks Rangers programme including the Junior Peatland Forest Ranger and Peatland Forest Ranger Programmes. In FY2021, a total of 126 students and 25 teachers from various schools in Kuala Langat, Hulu Selangor and Kuala Selangor districts have benefitted from these programmes.

**Education for the Orang Asli Community**

This initiative by Gamuda Parks aims to assist *Orang Asli* children in the form of education support. The Group’s financial support includes provision of 165 tablets in total for Sekolah Kebangsaan (Asli) Bukit Cheding and Sekolah Kebangsaan (Asli) Bukit Kemandol and 12 months Wi-Fi connectivity, enabling online learning development which would otherwise be inaccessible. We are also collaborating with NGOs who are experienced in serving underserved communities to conduct after-school learning sessions for the students.

**GAMUDA LEARNING CENTRE**

The Gamuda Learning Centre (GLC) is a centralised learning centre for the Group which oversees the training development of all employees including skills-based, technical training and professional competence.

**ENGLISH LANGUAGE UNIT**

The English Language Unit (ELU) was set up in 2016 to upskill our employees’ English language competency. Our online Gamuda English Test (GET) was developed as an in-house assessment tool, making the Group the first corporate company in Malaysia to win the British Council Innovation in Assessment Award, 2019.

To support our employees in upskilling their English proficiency, we have established an e-Resources for English Language Learning (eReLL) and conduct training sessions for employees in critical function departments.

**GAMUDA EXCELLENCE TRANSFORMATION**

The digitalisation of the value chain requires a rethinking of present methods, and the implementation of new approaches for improved efficiency. The Gamuda Excellence Transformation (GET) unit, which was instituted last year, comprises our best digital and data experts with the mandate of elevating digital excellence across the Group in collaboration with all business units to improve our digital engineering landscape and catalysing innovative opportunities.



*Photo: Gamuda Learning Centre, Damansara Jaya*

Pillar

3

# ENVIRONMENTAL AND BIODIVERSITY CONSERVATION

To drive impactful efforts in nature conservation and biodiversity stewardship in our developments

## KEY CONTENTS FOR FY2021



Biodiversity conservation

Page 118



IUCN Red List plants and animals within our developments

Page 119



#OneMillionTrees

Page 122



Biodiversity audits

Page 119



Working alongside indigenous communities

Page 123

Photo: Celadon City

SUSTAINABILITY REPORT

**A KEY ASPECT OF THE GAMUDA GREEN PLAN 2025 (GGP 2025) IS THE COMMITMENT TO SAFEGUARD THE NATURAL ENVIRONMENT.**

**BIODIVERSITY IS CRUCIAL IN DEFINING THE HEALTH OF AN ECOSYSTEM BECAUSE A MORE BIODIVERSE ECOSYSTEM MEANS A HEALTHIER ENVIRONMENT FOR LIVING THINGS TO INHABIT.**

For Gamuda, healthy biodiversity ensures a rich and natural environment that supports our developments. Our biodiversity strategies within our parks help contribute to food and water security through community gardens.

Our sustainable landscape management and maintenance fortifies an economically-driven biodiversity approach, such as native fruit species are attracting pollinators instead of the ornamental tree while minimising the use of chemical fertilisers.

Biodiversity also mitigates climate change and supports the local way of life, especially for indigenous communities in Malaysia known as *Orang Asli*, as well as farmers, fishermen and others who live off the land. Biodiversity is the heart of sustainable development and human well-being, and its conservation forms the core of the United Nations 2030 Agenda for Sustainable Development.

Gamuda's significant effort in this material issue is the establishment of Gamuda Parks in 2018 to address biodiversity and environmental conservation.

**Proactive environmental approach:  
Key biodiversity conservation initiatives**

1

Establishment of Wetlands Arboretum with focus on urban forest and research laboratory by the end of 2022

2

Focus on Paya Indah Discovery Wetlands (PIDW) conservation programme and conduct scheduled biodiversity audits and carbon stock measurements by 2023

3

Continue with the ongoing commitment to planting at least five percent trees species in the International Union for Conservation of Nature (IUCN) Red List



Photo: *Macaca nemestrina* (IUCN:VU). Found at Gamuda Gardens.

No	Details
<b>1</b>	<b>GAMUDA PARKS AWARENESS PROGRAMMES</b>
a)	Gamuda Parks Academy Nature School Setup and Programmes
b)	International Day for Biological Diversity 2021 (Virtual event)
c)	GParks Ranger School Programme @ XPLORIA
<b>2</b>	<b>GAMUDA PARKS SCIENTIFIC RESEARCH</b>
a)	Gamuda Parks Experts
b)	Soil Carbon Assessment
c)	Biodiversity Audit (Kota Permai Golf Club, Kota Kemuning and Bandar Botanic)
d)	Tree Tag and Identified for Preservation at Gamuda Cove

**BIODIVERSITY AUDITS**

Gamuda through Gamuda Parks is the first property developer to pledge to scientifically audit the health of the natural environments of its developments in Malaysia. Gamuda Parks periodically conducts internal and external biodiversity baseline audits based on the targets stated in Gamuda Parks Biodiversity Policy.

Since 2018, Gamuda Parks has conducted nine biodiversity audits (seven completed, two in progress) across our developments. These audits were jointly conducted with the Forest Research Institute of Malaysia (FRIM). We have illustrated the summary of our biodiversity assessments since 2018, including our latest FY2021 assessments at Horizon Hills and Celadon City.

Regarding our Tree Tagging and Preservation programme at Gamuda Cove, our FY2021 assessment found that the programme achieved the following milestones to date:

→ **593** trees under preservation were identified and tagged

→ **10** species identified as Least Concerned (LC) have been selected for conservation

→ **360** trees and **10** *Macaranga spp.* transplanted for Phase One at Wetlands Theme Park

→ **1,200** trees preserved for Phase One at Forest Park

→ **27** *Melicope Lunu Ankenda* and **18** *Pteleocarpa Lamponga* transplanted at Forest Park

→ **20** *Melicope Lunu Ankenda* transplanted at Gamuda Cove Central Park

Thus far, the efforts and results achieved have been encouraging. Gamuda Parks has completed tree-tagging in Gamuda Gardens Central Park with 5,531 trees tagged and ready to be uploaded into the Fieldview system by the end of 2021.

We are currently working on expanding our biodiversity audits to include carbon sequestration exercises which will indirectly monitor the productivity of ecosystem services contributed by trees.

In September 2021, we have completed our soil carbon stock assessment in Wetlands Forest Park, Gamuda Cove to measure carbon stored within trees and soil.

**IUCN RED LIST OF ENDANGERED SPECIES**

Through the aforementioned biodiversity audits, Gamuda has identified IUCN Red List plants and animals within the following Gamuda developments: Jade Hills, Gamuda Gardens, Gamuda Cove, PIDW, Celadon City and Valencia. This discovery has enabled conservation and protection efforts of these endangered species by Gamuda and the respective environmental agencies.

IUCN Red List Species Identified	
Critically Endangered (CR)	7
Endangered (EN)	12
Vulnerable (VU)	21
Near Threatened (NT)	28



Photo: *Lesser Adjutant* (IUCN: VU). Found at Paya Indah Discovery Wetlands.

SUSTAINABILITY REPORT

**OUR CONSERVATION INITIATIVES**

Conduct tree mapping assessment to measure cooling effect of green spaces in Celadon City

**01  
CELADON CITY**

Status: **Completed**



**Total Species:**  
170 species

- Valuable Flora Species:**  
*Pterocarpus indicus (EN)*  
*Pterocarpus macrocarpus (EN)*  
*Anisoptera costata (EN)*  
*Dipterocarpus alatus (VU)*

- Hopea adorata (VU)*  
*Azelia xylocarpa (EN)*  
*Khaya senegalensis (VU)*  
*Swietenia macrophylla (VU)*

**FAUNA**

**Total Species:**  
97 species

**Valuable Fauna Species:**  
-

- 29** bird species   
 **7** fish species   
 **8** amphibian species  
**4** mammal species   
 **39** insect species   
 **10** reptile species

**OUR CONSERVATION INITIATIVES**

Introduction of bee harvesting to encourage pollination within Horizon Hills golf course

**02  
HORIZON HILLS**

Status: **Completed**



**Total Species:**  
72 species

**Valuable Flora Species:**  
*Melaleuca cajuputi (VU)*

**FAUNA**

**Total Species:**  
54 species

- Valuable Fauna Species:**  
*Mycteria cinerea (EN)*  
*Mycteria leucocephala (NT)*  
*Psittacula Longicauda (VU)*  
*Acridotheres javanicus (VU)*

- 39** bird species  
**6** mammal species  
**4** reptile species  
**5** amphibian species

**03  
PAYA INDAH DISCOVERY WETLANDS**

Status: **Completed**



**Total Species:**  
160 species

- Valuable Flora Species:**  
*Dryobalanops aromatica (VU)*  
*Hopea helferi (EN)*  
*Shorea materialis (VU)*  
*Shorea roxburghii (VU)*

**FAUNA**

**Total Species:**  
276 species

- Valuable Fauna Species:**  
 Pig-nosed Turtle (EN)  
 Ambonia Box Turtle (VU)  
 Yellow-headed Temple Turtle (EN)  
 Giant Asian Pond Turtle (VU)  
 Malaysian Giant Tortoise (EN)  
 Black Marsh Turtle (VU)  
 Red-footed Tortoise (VU)  
 Asian forest Tortoise (CR)  
 Yellow-headed Tortoise (CR)  
 Radiated Tortoise (CR)  
 Yangtze Giant Softshell Turtle (CR)  
 Dusky Leaf Langur (NT)  
 Grey-headed Fish Eagle (NT)  
 Black Hornbill (NT)  
 Oriental Pied Hornbill (NT)  
 Rhinoceros Hornbill (NT)  
 Fiery Minivet (NT)  
 Lesser Adjutant (VU)  
 Jambu Fruit Dove (NT)  
 Black Magpie (NT)  
 Chestnutbellied Malkoha (NT)  
 Black-bellied Malkoha (NT)  
 Masked Finfoot (EN)  
 Red-crowned Barbet (NT)  
 Buff-necked Woodpecker (NT)  
 Streaked Bulbul (NT)  
 Scaly-breasted Bulbul (NT)  
 Glossy Ibis (NT)  
 Rufouscrowned Babbler (NT)  
 Short-tailed Babbler (NT)  
 White Chested Babbler (NT)  
 Striped TitBabbler (NT)

**OUR CONSERVATION INITIATIVES**

Initiate an interactive corner called Gamuda Parks Botanica to showcase the richness of biodiversity in Jade Hills

**04  
JADE HILLS**

Status: **Completed**



**Total Species:**  
57 species

- Valuable Flora Species:**  
*Hopea adorata (VU)*  
*Podocarpus polystachyus (NT)*  
*Dalbergia latifolia (VU)*  
*Pimenta racemose (VU)*  
*Kopsia arborea (CR)*

**FAUNA**

**Total Species:**  
73 species

**Valuable Fauna Species:**  
-

**OUR CONSERVATION INITIATIVES**

Allocation of Gamuda Parks Interpretative Board at high biodiversity area. Implementation of Quick Response (QR) code feature at every valuable tree seamlessly directs users to more detailed information of the specific tree

**05  
VALENCIA**

Status: **Completed**



**Total Species:**  
345 species

- Valuable Flora Species:**  
*Hopea Subalata (CR)*  
*Dipterocarpus chartaceus (VU)*  
*Dipterocarpus kerrii (VU)*  
*Hopea mengarawan (VU)*  
*Hopea adorata (VU)*  
*Shorea materialis (VU)*  
*Agathis borneensis (NT)*  
*Dryobalanops aromatica (NT)*  
*Hopea griffithii (NT)*  
*Shorea roxburghii (NT)*  
*Shorea sumatrana (NT)*  
*Elaeocarpus grandiflorus (NT)*

**FAUNA**

**Total Species:**  
46 species

**Valuable Fauna Species:**  
-

**OUR CONSERVATION INITIATIVES**

Tree planting of *Hopea Subalata*, a critically endangered tree species as listed in the IUCN Red List

**06  
GAMUDA GARDENS**

Status: **Completed**



**Total Species:**  
96 species

- Valuable Flora Species:**  
 Golden Cane Palm, *Dypsis lutescens (NT)*  
 Angsana, *Pterocarpus indicus (VU)*

**FAUNA**

**Total Species:**  
81 species

- Valuable Fauna Species:**  
 Buff-necked Woodpecker (NT)  
 Chestnut-bellied Malkoha (NT)  
 Grey-headed Fish Eagle (NT)  
*Macaca nemestrina (VU)*

**OUR CONSERVATION INITIATIVES**

Preserve and transplant of 50 specimens of *Melicope lunu akenda*, into Gamuda Cove Central Park

**07  
GAMUDA COVE**

Status: **Completed**



**Total Species:**  
47 species

- Valuable Flora Species:**  
*Melicope lunu-akenda (VU)*  
*Pterocarpus Indicus (VU)*

**FAUNA**

**Total Species:**  
106 species

- Valuable Fauna Species:**  
 Pig-tailed Macaque (VU)  
 Ashy Tailorbird (NT)  
 Chestnut-bellied Malkoha (NT)  
 Grey-headed Fish Eagle (NT)  
 Buff-necked Woodpecker (NT)  
 Red Jungle Fowl (NT)

SUSTAINABILITY REPORT



Photo: Wetlands Arboretum

**WETLANDS ARBORETUM**

The Wetlands is located next to Gamuda Cove development. It is classified as a high-biodiversity value area and home to more than 300 protected wetlands species, aquatic plants and marshes.

In collaboration with the non-governmental organisation (NGO) Global Environment Centre (GEC), the Selangor State Forestry Department and the *Orang Asli* Development Department (JAKOA), Gamuda's involvement is aimed at arresting further degradation of the site and to safeguard the rich biodiversity of the forest reserve. In FY2021, we have engaged with multiple stakeholder such as botanical and flora experts, and the local native communities.

Gamuda is now focused on reviving the site as a sustainable ecological tourism site, complete with the establishment of a Wetlands Arboretum (due to open by the end of 2022) to foster and expand biodiversity education and research. As an adjacent landowner, Gamuda has also committed towards providing funding and resources for rehabilitating the 2,372 acres Kuala Langat North Forest Reserve.

The centre of all these efforts is the establishment of a local community group to help with the forest patrols in the prevention of fire, to support the implementation of the Forest Fire Management Plan, and to create awareness among primary school children in peat swamp forest conservation.

In support of the Ministry of Energy and Natural Resources 100 Million Trees campaign, as well as global climate change relief efforts, the Group via Gamuda Parks continues to pursue its target of #OneMillionTrees, to be planted by 2023. The commitment to achieve #OneMillion trees and saplings by 2023 is further reflected in Gamuda's Advance Tree Planting programme. The programmes involve employing nurseries where trees are grown in ideal, near-pristine conditions for two years or more, with optimal maintenance practices, after which, the trees are ready for transplanting. Trees harvested from the nursery are immediately planted to reduce stress and to ensure faster recovery.



**As an adjacent landowner, Gamuda has also committed towards providing funding and resources for rehabilitating the 2,372 acres Kuala Langat North Forest Reserve.**

**MIYAWAKI METHOD**

Tree planting and forest restoration are undertaken using the Miyawaki forest restoration method, whereby the aim is to cultivate fast-growing native forest ecosystems in urban locations from degraded soils within a shorter 20 to 30-year period. The technique is supposed to ensure that the growth is 10 times faster and 30 times denser than usual. It involves planting a group of native species in an area and becomes maintenance free after the first three years. The urban forest is targeted to boost the height of the trees up to 30m and to attract at least a minimum of five species of micro fauna. This approach is in line with Goal Three of the National Policy on Biological Diversity 2016-2025.

The Miyawaki method anchors our #OneMillionTrees target throughout our developments, namely Gamuda Gardens, Gamuda Cove, Horizon Hills, and twentyfive.7. A great testament of the Miyawaki method is the approximately 8,000 trees planted across Gamuda Gardens Central Park. This not only provides natural enclosure for birds through overstorey tree clusters but also the shade for Central Park visitors. As of the end of FY2021, Gamuda has planted 302,081 trees across our developments.

**EMPLOYMENT AND EDUCATION FOR THE INDIGENOUS COMMUNITY**

As part of our communal approach, we are committed to empowering the indigenous communities via education and employment opportunities. We acknowledge the experience and knowledge of indigenous people on biodiversity by having them be part of Gamuda nature conservation initiatives. This is strengthened with partnering environmental NGOs like Binturong Alam Ventures and The Asli Co as they have the skills, expertise and knowledge in biodiversity protection. This common-goal partnership between Gamuda, indigenous people and NGOs sets a positive impact and mindset to nurture *Orang Asli* communities adjacent to the Hulu Langat Forest Reserve and Gamuda Cove while conserving the surrounding environment.

**the Wild Seed Tree Bank, Advance Tree Planting, sale of crafts and farm produce, and eco-education programmes.** Adopting a participative approach by including the indigenous community has yielded significant positive improvements. The latter's vast knowledge on the role of trees in forest ecosystems has enabled Gamuda to be more effective in its seeding programmes, medicinal wetlands and fruit tree planting across its developments.

We also have made societal impact to 165 *Orang Asli* children by supporting their education needs by setting up the avenue for classes and providing tablets. We run after-school classes with dedicated tutors who have the background in teaching underserved communities to ensure consistent learning for these deserving children.

Our partnership with *Orang Asli* is strengthened with the **200 employment opportunities at our Arboretum and nurseries via**



Photo: Results of Miyawaki method in Valencia



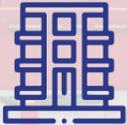
Photo: Advance Tree Planting

Pillar  
**4**

# ENHANCING SUSTAINABILITY VIA DIGITALISATION

By leveraging on technology and data management that will enhance and enable Group-wide efforts in sustainable development

## KEY CONTENTS FOR FY2021



Efficient resource management via  
**Gamuda Digital IBS**  
Page 127



**QLASSIC, GQUAS and QGA**  
for developments  
Page 128



Sustainable Procurement via **SAP Ariba**  
Page 129



**BIM technology**  
Page 129



**Gamuda Excellence Transformation**  
Page 130

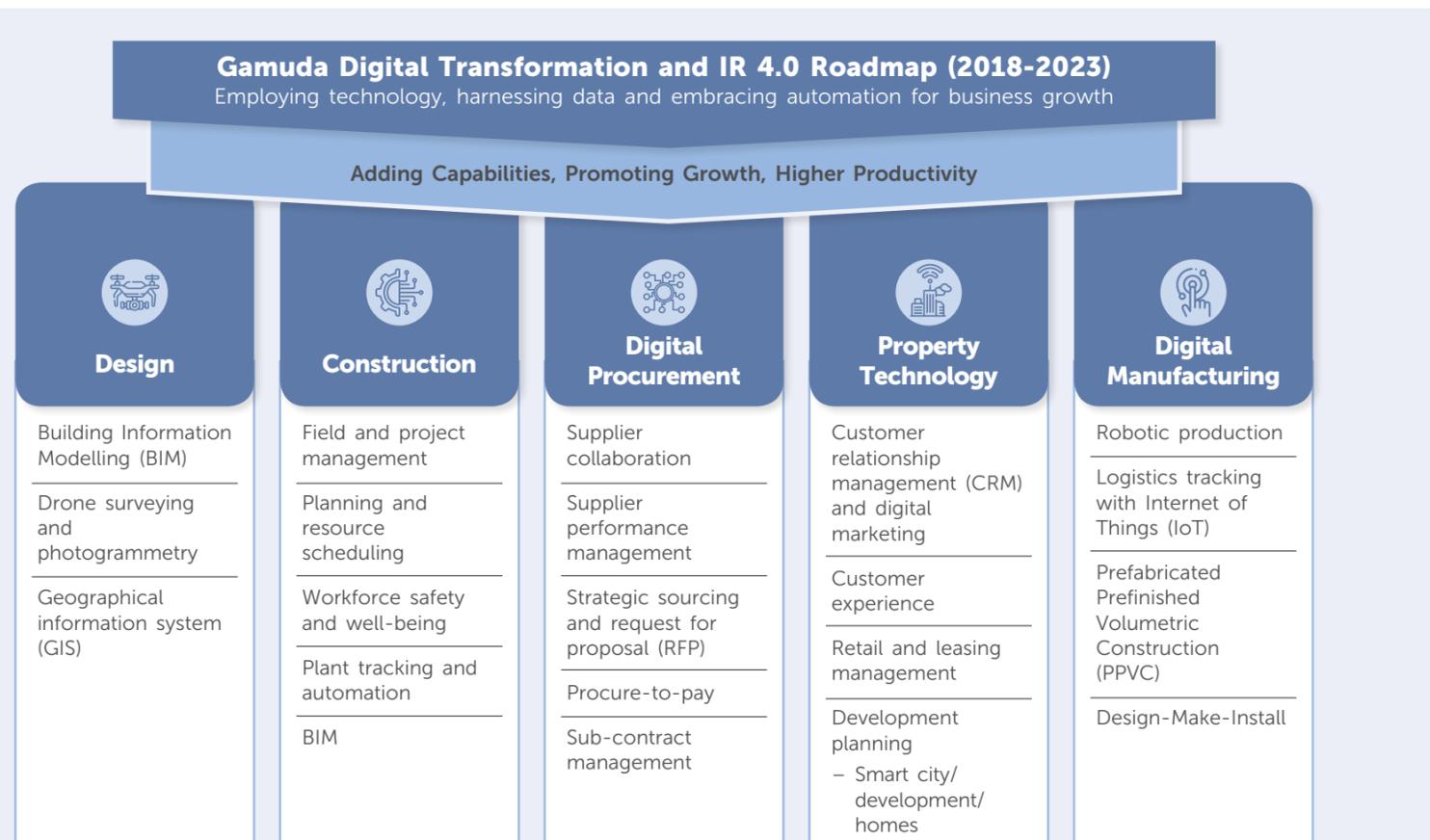


Photo: Gamuda Digital IBS factory

SUSTAINABILITY REPORT

INCREASINGLY, GAMUDA LOOKS FOR CONTINUOUS DIGITALISATION TO ENHANCE BUSINESS OPERATIONS.

The use of technology is pervasive across the Group to transform our current processes and value chain. These include Industrial Revolution 4.0 (IR 4.0), big data analytics and other technologies.



**Finance and Procurement Management**

- Enterprise resource planning (ERP) modernisation
- Data warehouse for dashboards, artificial intelligence (AI)

**Human Capital Management**

- Human capital management (HCM) information system modernisation
- BIM, Tunnelling Training Academy (TTA) and Technical and Vocational Education and Training (TVET) academies
- Employee experience

**Information and Technology**

- Collaboration tools
- Common Data Environment (CDE)
- AI and analytics
- Cloud infrastructure
- Robotic process automation (RPA)

**Governance, Risk and Compliance**

- Environmental, social and governance framework
- Information and cybersecurity
- Threat intelligence

**Back Office Infrastructure**

- Compatible data platform for collaboration, analysis and AI

GAMUDA DIGITAL IBS

**MALAYSIA'S FIRST DIGITAL IBS**

Gamuda Digital Industrialised Building Systems (IBS) seeks to transform traditional delivery models and construction practices by implementing a system that facilitates improved resource usage and efficiency, reduced material wastage and quicker delivery times.

Digital IBS approach employs cutting-edge, IR 4.0 technology that drives a more sustainable approach compared to conventional construction methods.

Unlike conventional IBS systems, Digital IBS affords more flexibility in design, faster construction and superior finishes. This reduces manpower by 60 percent and is faster by 40 percent compared to conventional construction. The controlled environment in Gamuda IBS is superior to on-site set ups reducing wastage to less than one percent. Gamuda Digital IBS has independently verified by the Construction Research Institute of Malaysia to increase productivity and equip contractors for IR 4.0.

Digital IBS is a powerful production system to deliver end products that are error-free with high precision and quality. With BIM solutions, Digital IBS affords the advantage of virtual design on a CDE. This enables design to be done online amidst a shared platform, thus eliminating errors and enhancing efficiency throughout the construction process.

State-of-the-art robotics and a high degree of automation are also significant aspects of Digital IBS. These enable the manufacturing of high-quality end products that meet stringent tolerance levels. The system also enables the use of a wide range precast products towards accommodating a variety of building applications including precast bathroom pods.

Our end-to-end Digital IBS solution captures all design data online whereby drawings will be translated into construction elements and assembled on-site. Currently, we are working towards digitalising all of our management work systems.

**All Gamuda Digital IBS products are \*QLASSIC-compliant with construction shortened by up to a 40 percent reduction in construction duration.**

**Consistent quality from the manufacturing environment compared to on-site construction.**

\*Quality Assessment System for Building Construction Works (or QLASSIC), administered by the CIDB.

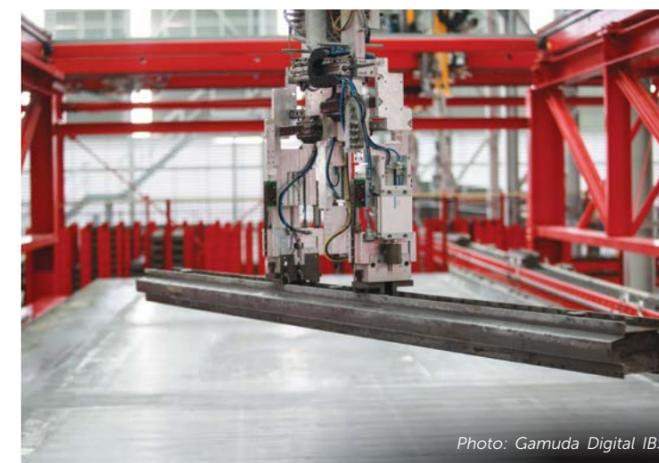


Photo: Gamuda Digital IBS

Our Digital IBS completed track record are as follows:

- Bukit Bintang City Centre Independent Side Walls, Lucentia Residence
- Gamuda Cove, Palma Sands
- Gamuda Gardens, Gaia Residences
- GEMS Residences
- MGKT (Underground) Escape Shaft 3\*
- RSKU Gamuda Gardens, Danau Ria\*
- RSKU Cybervalley (PKNS), Idaman Residensi\*
- RSKU Jade Hills, Gapura Bayu\*
- RSKU Kota Kemuning, Pangsapuri Aranda\*
- RSKU Kundang Estates, Laman Adonis\*
- RSKU Puncak Bestari, Seri Seraya\*
- Tun Razak Exchange (TRX) Central Plant Room Walls
- twentyfive.7, The Amber Residence

\*Completed projects. RSKU – Rumah Selangorku.

**Our IBS Completed Track Record**

- 40 percent faster construction
- 60 percent reduced reliance on foreign workforce
- Fully integrated BIM robotic production
- IBS score as high as 92 percent
- Australia Federal Safety Commissioner (FSC) accredited
- Proven for both high-rise and landed residential, commercial and infrastructure projects

Our high-quality control standard is already seeing Digital IBS rapidly expanding into several Gamuda Land projects, including Amber Residence at twentyfive.7, Gaia Residences at Gamuda Gardens and Maya Bay Residences at Gamuda Cove. Moving forward, plans are underway to fabricate not just high-rise homes, but also luxurious landed bungalows, high-rise buildings up to 50 storeys and even public facilities like hospitals.

SUSTAINABILITY REPORT

IMPROVING BUILD QUALITY

OUR FULL-SCALE IMPLEMENTATION OF DIGITAL IBS AND BIM HAS ENABLED GAMUDA TO CONTINUOUSLY IMPROVE BUILD QUALITY.

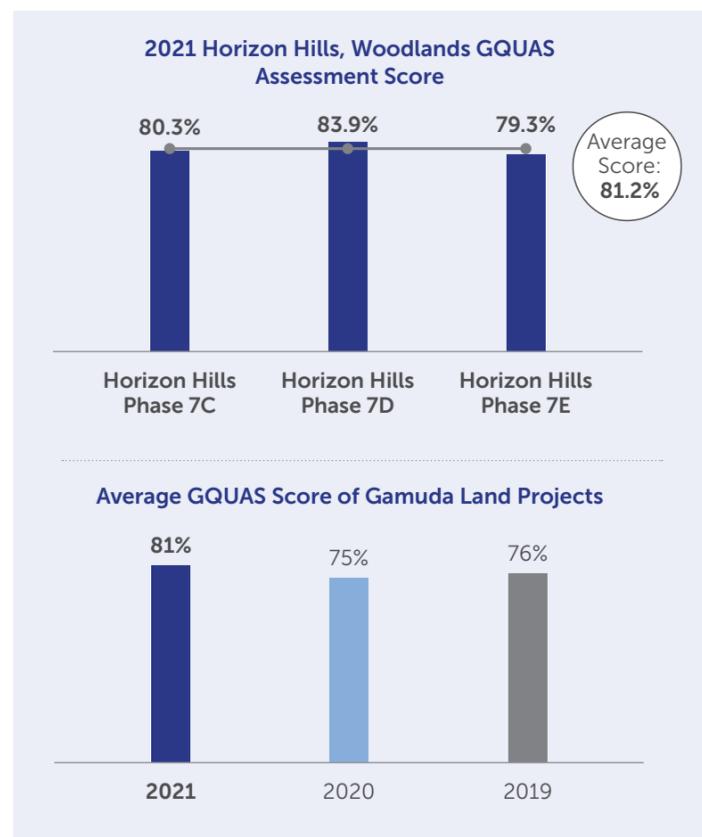
Gamuda Land continues to build upon the high scores set under the Quality Assessment System in Construction (QLASSIC) system, as stipulated by the Construction Industry Development Board (CIDB). As our ongoing projects are still in progress, no QLASSIC assessment was conducted in FY2021. On the other hand, we have completed our Gamuda Land Quality Unit Assessment System (GQUAS) evaluation and Quality Gate Assessments (QGA) for Gamuda Land's projects.

Our internal GQUAS and QGA systems evaluate our products' workmanship quality and processes. The QGA is currently conducted for all Gamuda Land's Klang Valley projects and will be expanded to Horizon Hills, Bukit Bantayan Residences as well as Vietnam projects. The objective of this assessment is to measure the constructed and in-process works against the required workmanship standards, GQUAS standards or higher specifications, identify issues and solutions to prevent recurrence and promote continuous improvements. Over the last three years, the average quality score has improved as shown in the diagram.

In FY2021, Horizon Hills, the Woodlands project underwent the GQUAS and achieved a high 81.2 percent. A total of 30 QGA sessions took place from August 2020 to 28 May 2021. No QGA sessions were conducted between June 2021 to July 2021 due to the rising COVID-19 infection cases and ensuing of the Full Movement Control Order (FMCO) and Enhanced Movement Control Order (EMCO) that limited physical mobility.

Gamuda is ahead of the curve, with our early adoption of BIM technology in the design and build of our products. Gamuda BIM is a three-dimensional (3D) model-based computerised system that involves the creation and management of digital information to facilitate the planning, designing, construction, operation and maintenance of a building or facility on a shared platform.

BIM enables the Group to improve productivity at the design stage, reduce abortive works in the construction phase and overall achieve greater efficiency in the construction process, whilst ensuring timely delivery of our projects with thoughtful placemaking. The number of Gamuda projects tapping BIM technology continues to rise through the years.



Developments	Number of QGA sessions
Gamuda Cove	9
Gamuda Gardens	7
twentyfive.7	5
Jade Hills	5
Horizon Hills	3
Kota Kemuning	1
<b>TOTAL</b>	<b>30</b>

BIM ENABLING TIMELY AND INTELLIGENT PROJECT PLANNING AND PROGRAMMING

This digital transformation is a paradigm shift within the Malaysia construction industry standards, as it changed the project management and supply chain collaboration, which is in line with the Construction Industry's Transformation Programme.

The strategic usefulness of BIM is applied across the Group for our property and infrastructure projects. This is best exemplified in its application to ensure on-time and on-cost delivery of mega infrastructure, such as the MRT Putrajaya Line. Gamuda remains one of the few companies in the world to implement BIM Level 2 for rail and tunnelling infrastructure project of this scale and complexity. This complexity is largely materialised in the massive coordination of multiple disciplines working in tandem to deliver a successful project.

Through BIM, these three key disciplines can simultaneously look at smaller details and the bigger picture by communicating with consultants and other auxiliary departments like Approval Management Department, Contract and Commercial Department and Project Management Department (PMD) to bring together the various work sections – Civil, Structural, Stations and Systems.

Gamuda is currently in the process of getting ISO 19650 certification (international standard for managing information over the whole life cycle of a built asset using BIM). This will bring more meaning to our efforts to digitalise our construction processes while minimising environmental footprint, in this case omitting the dependency on paper, reducing resources and ensuring precise projection of material usage.

- Design and Technical**  
Elements such as construction design, alignment, station location and costing
- Project Management**  
Responsible for executing and monitoring the entire construction, which entails ensuring smooth work progress, the safety of all contractors and overall work quality
- Planning and Programming**  
Responsible for overseeing the successful construction of the project at the highest quality within the stipulated budget and timeframe

**Building Information Modelling Augmented Reality (BIMAR) Application**

BIMAR is a first generation augmented reality application for buildings, construction sites and infrastructure projects. It allows asset owners, project developers, facility managers, contractors and architects to visualise and interact with customised BIM models on-site and off-site. In November 2020, MMC Gamuda KVMRT (T) Sdn Bhd (MGKT) leveraged on the BIMAR App and took top honours in the **Malaysian Technological Excellence Awards (MTEA) 2020** under the Augmented Reality and Virtual Reality (Engineering) category.

Along with various cloud-enabled functions which allow direct reporting from the field, BIMAR is scalable and customisable to facilitate seamless, large-scale roll-out across mega infrastructure projects in a short time in line with IR 4.0 trends.

INTEGRATED DIGITAL ECOSYSTEM

The ongoing pandemic has further stressed the importance of leveraging digital technologies in our business for faster decision-making and more automated procedures, especially when it comes to managing our larger value chain of suppliers and tenders.

Since 2018, the Group has digitised procurement processes to minimise processing efforts and increase transparency. Gamuda has further invested in a new-generation ERP platform – SAP S/4HANA. Its in-memory capabilities will allow faster and data-driven decisions in a more efficient manner. This is implemented Group-wide by phase basis.

Sustainable Procurement through SAP Ariba

At Gamuda, we ensure fair and transparent procurement practices for all our projects and dealings with vendors and suppliers. Anchored by the Group Procurement Policies and Procedures and the Gamuda Procurement Code of Conduct which gives rise to these three premises:

- Ethical, Fair and Transparent Sourcing**
- Sustainable Resource Management**
- Local Sourcing**

## SUSTAINABILITY REPORT

Four SAP Ariba modules have been implemented between October 2018 to April 2019. These are:

 <p><b>Strategic Sourcing</b></p> <p>Handles the RFP, quotation and tender processes. Its electronic templates support faster requests for information and quotation, facilitate technical and commercial scoring, and are powered by a robust e-auction platform.</p>	 <p><b>Procure-to-Pay</b></p> <p>Supports the process of requisitioning, purchasing, receiving, paying and accounting for indirect goods and services. The Group will deploy this by phases as it empowers efficiency in employee self-service, enabling governance and control.</p>	 <p><b>Supplier Life Cycle Performance Management</b></p> <p>Consolidates supplier information, allowing suppliers to self-serve in updating their company and compliance information in line with Gamuda's high compliance and sustainability targets. Periodic supplier performance evaluation can be automatically facilitated and computed by the system.</p>	 <p><b>Contract Management</b></p> <p>Centralises commercial and business transaction contract management. It monitors and manages commitments as well as the supplier's performance as per these contracts. This online collaboration between suppliers and tenderers increases response times and reduces paper work.</p>
---	---	--	--

Since the digitalisation of procurement and supply chain processes, the Group had achieved more than RM300 million in savings through supply chain collaboration to achieve more competitive pricing in delivering superior values to project stakeholders. A holistic digitalisation initiative in procurement eliminate significant paper consumption that circulating in the supply chain processes.

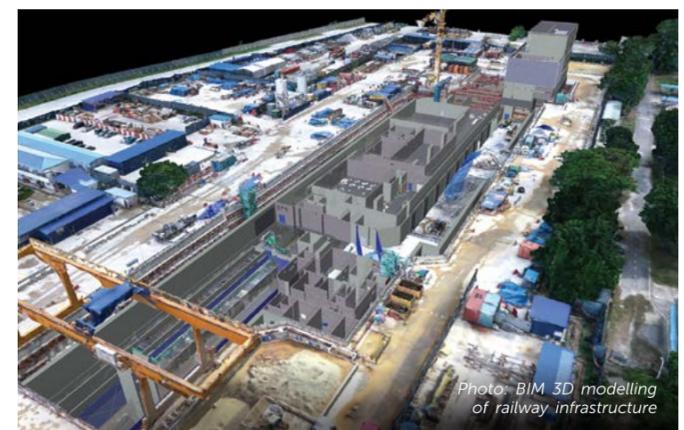
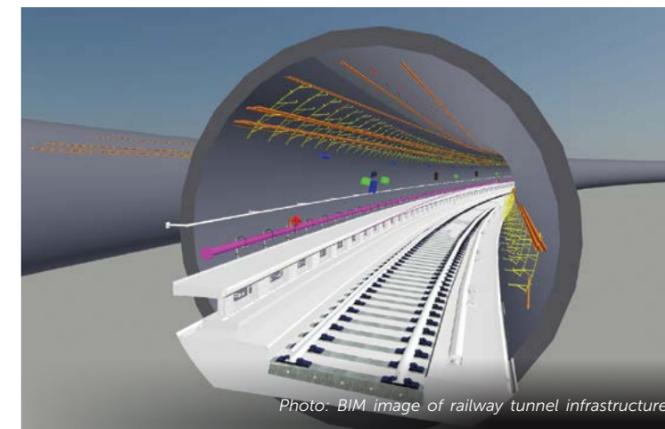
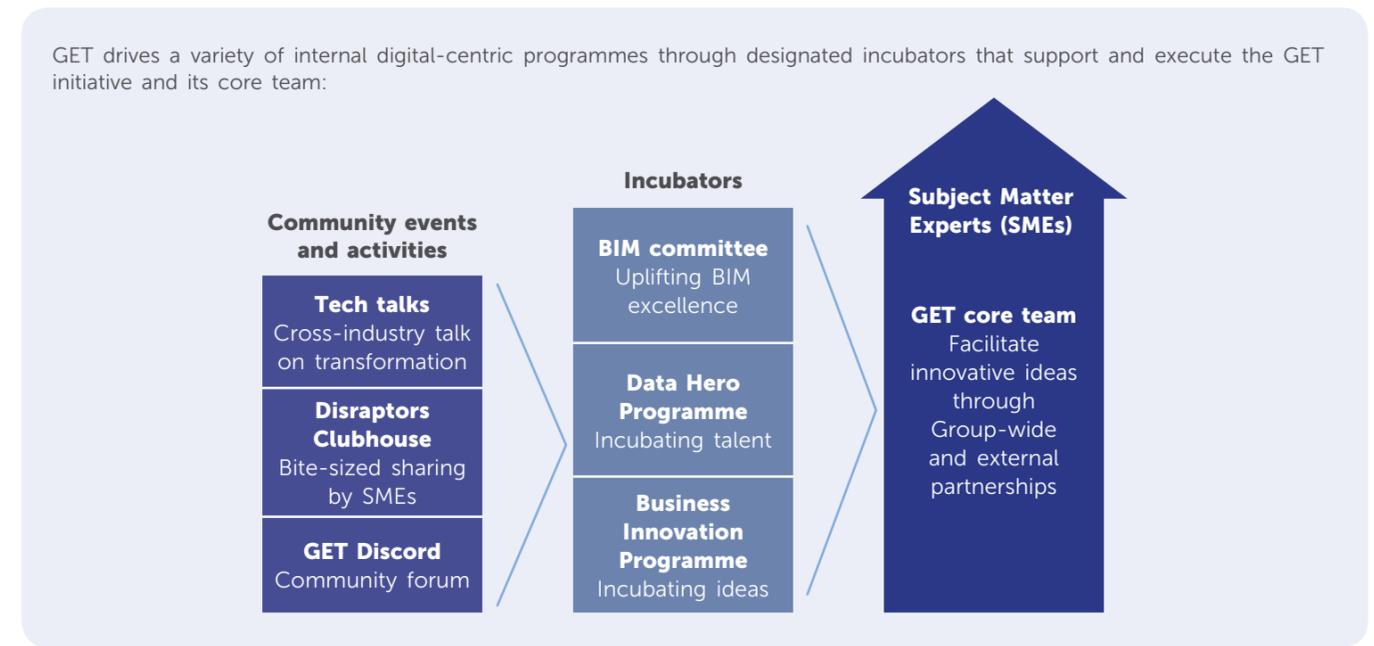
A fast in-memory cloud ERP platform with real-time analytics, the SAP S/4HANA system is embedded across the Group's organisation and subsidiaries, allowing us to take advantage of growing data streams on the project management, trading activities, procurement and finance automation fronts. This e-management approach provides greater clarity, transparency and insight.

### EMBRACING THE DIGITAL LEAP THROUGH GAMUDA EXCELLENCE TRANSFORMATION

The Gamuda Excellence Transformation (GET) unit is the Group's pool of digital and data experts. GET has the mandate of elevating digital excellence in partnership with all business units and employees through employee empowerment, championing digital engineering, driving innovation programmes and catalysing innovation opportunities.

<p><b>DIGITAL ENGINEERING GOVERNANCE</b></p> <p>Developing our technology landscape and talent pool in digital engineering</p> 	<p><b>DIGITAL EMPOWERMENT</b></p> <p>Creating innovation leaders and empowering them to innovate in their teams</p> 
<p><b>DATA EXCELLENCE</b></p> <p>Innovating processes in the company and creating digital growth opportunities</p> 	<p><b>DATA HERO COMMUNITY</b></p> <p>Providing a steady pipeline of innovative talents and disruptive ideas</p> 

GET drives a variety of internal digital-centric programmes through designated incubators that support and execute the GET initiative and its core team:



SUSTAINABILITY REPORT

GRI Standards Content Index

GRI Standards	Disclosure	Page number(s)	Section Header/Subsection Header
<b>GENERAL DISCLOSURES</b>			
<b>GRI 102: General Disclosures</b>			
<b>ORGANISATIONAL PROFILE</b>			
102-1	Name of the organisation	Front Cover, Back Cover	Front Cover, Back Cover
102-2	Activities, brands, products, and services	6-7	Group Corporate Structure
102-3	Location of headquarters	4-5	Corporate Information
102-4	Location of operations	2-3	Our Global Presence
102-5	Ownership and legal form	6-7	Group Corporate Structure
102-6	Markets served	2-3	Our Global Presence
102-7	Scale of the organisation	17, 38-39, 101	Key Performance Indicators; Group Organisation Structure; Our Workforce
102-8	Information on employees and other workers	101-103	Our Workforce
102-9	Supply chain	100, 129-130	Contributing to the Local Economy through Local Procurement; Integrated Digital Ecosystem
102-10	Significant changes to the organisation and its supply chain	-	No significant changes to the organisation and its supply chain for FY2021
102-11	Precautionary Principle or approach	62-63, 74-75	Sustainability Governance and Framework; Sustainability Risks and Opportunities
102-12	External initiatives	56-57	About This Report
102-13	Membership of associations	66	Governance through Collaboration and Membership of Associations
<b>STRATEGY</b>			
102-14	Statement from senior decision-maker	10-16	Statement from the Group Managing Director
102-15	Key impacts, risks, and opportunities	61, 74-75	Fulfilling Our Commitments: Progress Made; Sustainability Risks and Opportunities
<b>ETHICS AND INTEGRITY</b>			
102-16	Values, principles, standards, and norms of behaviour	64	Gamuda Group ESG Framework
102-17	Mechanisms for advice and concerns about ethics	65	Grievance and Whistleblowing Mechanisms
<b>GOVERNANCE</b>			
102-18	Governance structure	38-39, 62-63	Group Organisation Structure
102-19	Delegating authority	62-63	Sustainability Governance and Framework
102-20	Executive-level responsibility for economic, environmental, and social topics	62-63	Sustainability Governance and Framework
102-21	Consulting stakeholders on economic, environmental, and social topics	67-68	Engaging Our Stakeholders
102-22	Composition of the highest governance body and its committees	38-52, 62-63, 146-152	Sustainability Governance and Framework; Corporate Governance Overview Statement
102-23	Chair of the highest governance body	62-63, 146-152	Sustainability Governance and Framework; Corporate Governance Overview Statement
102-24	Nominating and selecting the highest governance body	146-155	Corporate Governance Overview Statement
102-25	Conflicts of interest	40-48	Profile of Board of Directors
102-26	Role of highest governance body in setting purpose, values, and strategy	62-63, 146-155	Sustainability Governance and Framework; Corporate Governance Overview Statement
102-27	Collective knowledge of highest governance body	146-155	Corporate Governance Overview Statement
102-28	Evaluating the highest governance body's performance	146-155	Corporate Governance Overview Statement
102-29	Identifying and managing economic, environmental, and social impacts	69-70, 74-75	Materiality; Sustainability Risks and Opportunities
102-30	Effectiveness of risk management processes	74-75, 157-158	Sustainability Risks and Opportunities; Statement on Risk Management and Internal Control

GRI Standards	Disclosure	Page number(s)	Section Header/Subsection Header
<b>GENERAL DISCLOSURES (CONT'D.)</b>			
<b>GRI 102: General Disclosures (Cont'd.)</b>			
<b>GOVERNANCE (CONT'D.)</b>			
102-31	Review of economic, environmental, and social topics	62-63	Sustainability Governance and Framework
102-32	Highest governance body's role in sustainability reporting	62-63	Sustainability Governance and Framework
<b>STAKEHOLDER ENGAGEMENT</b>			
102-40	List of stakeholder groups	67-68	Engaging Our Stakeholders
102-41	Collective bargaining agreements	-	-
102-42	Identifying and selecting stakeholders	67-68	Engaging Our Stakeholders
102-43	Approach to stakeholder engagement	67-68	Engaging Our Stakeholders
102-44	Key topics and concerns raised	67-68	Engaging Our Stakeholders
<b>REPORTING PRACTICE</b>			
102-45	Entities included in the consolidated financial statements	264-270	Notes to the Financial Statements
102-46	Defining report content and topic Boundaries	56-57	About This Report
102-47	List of material topics	70	Materiality
102-48	Restatements of information	-	-
102-49	Changes in reporting	87-88, 107-108	The scope of reporting has been expanded for Energy, Emissions, Occupational Health and Safety topics.
102-50	Reporting period	56-57	About This Report
102-51	Date of most recent report	56-57	About This Report
102-52	Reporting cycle	56-57	About This Report
102-53	Contact point for questions regarding the report	56-57	About This Report
102-54	Claims of reporting in accordance with the GRI Standards	56-57	About This Report
102-55	GRI content index	132-136	GRI Standards Content Index
102-56	External assurance	143-145	Limited Assurance Statement
<b>GRI 200 ECONOMIC TOPIC-SPECIFIC STANDARDS</b>			
<b>ECONOMIC VALUE GENERATED AND DISTRIBUTED</b>			
<b>GRI 103: Management Approach 2016</b>			
103-1	Explanation of the material topic and its Boundary	71	Economic Value Generated and Distributed
103-2	The management approach and its components	10-16, 30, 33, 71	Statement from the Group Managing Director; Group Segmental Performance; Statement of Value Added and Distribution; Economic Value Generated and Distributed
103-3	Evaluation of the management approach	33, 71	Statement of Value Added and Distribution; Economic Value Generated and Distributed
<b>GRI 201: Economic Performance 2016</b>			
201-1	Direct economic value generated and distributed	71	Economic Value Generated and Distributed
<b>PROCUREMENT PRACTICES</b>			
<b>GRI 103: Management Approach 2016</b>			
103-1	Explanation of the material topic and its Boundary	100	Contributing to the Local Economy through Local Procurement
103-2	The management approach and its components	100, 129-130	Contributing to the Local Economy through Local Procurement; Integrated Digital Ecosystem
103-3	Evaluation of the management approach	100, 129-130	Contributing to the Local Economy through Local Procurement; Integrated Digital Ecosystem
<b>GRI 204: Procurement Practices 2016</b>			
204-1	Proportion of spending on local suppliers	100	Contributing to the Local Economy through Local Procurement
<b>ANTI-CORRUPTION</b>			
<b>GRI 103: Management Approach 2016</b>			
103-1	Explanation of the material topic and its Boundary	65	Governance through Strong Anti-Corruption Practices
103-2	The management approach and its components	65, 164	Governance through Strong Anti-Corruption Practices; Statement of Integrity and Governance
103-3	Evaluation of the management approach	65	Governance through Strong Anti-Corruption Practices

SUSTAINABILITY REPORT

GRI Standards	Disclosure	Page number(s)	Section Header/Subsection Header
<b>ANTI-CORRUPTION (CONT'D.)</b>			
<b>GRI 205: Anti-Corruption 2016</b>			
205-2	Communication and training about anti-corruption policies and procedures	65	Governance through Strong Anti-Corruption Practices
205-3	Confirmed incidents of corruption and actions taken	65	Governance through Strong Anti-Corruption Practices
<b>GRI 300 ENVIRONMENTAL TOPIC-SPECIFIC STANDARDS</b>			
<b>GRI 103: Management Approach 2016</b>			
<b>ENERGY</b>			
103-1	Explanation of the material topic and its Boundary	77, 82-83, 87-88	Pillar 1 Sustainable Planning and Design for Construction; Alleviating Environmental Impact by Reducing Our Emissions; Energy Efficiency and Adoption of Renewables
103-2	The management approach and its components	76-77, 82-83, 87-88	Pillar 1 Sustainable Planning and Design for Construction; Alleviating Environmental Impact by Reducing Our Emissions; Energy Efficiency and Adoption of Renewables
103-3	Evaluation of the management approach	76-77, 82-83, 87-88	Pillar 1 Sustainable Planning and Design for Construction; Alleviating Environmental Impact by Reducing Our Emissions; Energy Efficiency and Adoption of Renewables
<b>GRI 302: Energy 2016</b>			
302-1	Energy consumption within the organisation	87-88	Alleviating Environmental Impact by Reducing Our Emissions
<b>WATER</b>			
<b>GRI 103: Management Approach 2016</b>			
103-1	Explanation of the material topic and its Boundary	77, 89	Pillar 1 Sustainable Planning and Design for Construction; Maximising Efficiency in Our Water Consumption
103-2	The management approach and its components	76-77, 82-83, 89	Pillar 1 Sustainable Planning and Design for Construction; Maximising Efficiency in Our Water Consumption
103-3	Evaluation of the management approach	76-77, 82-83, 89	Pillar 1 Sustainable Planning and Design for Construction; Maximising Efficiency in Our Water Consumption
<b>GRI 303: Water and Effluents 2018</b>			
303-1	Water withdrawal by source	89	Maximising Efficiency in Our Water Consumption
303-3	Water recycled and reused	89	Maximising Efficiency in Our Water Consumption
<b>BIODIVERSITY</b>			
<b>GRI 103: Management Approach 2016</b>			
103-1	Explanation of the material topic and its Boundary	79, 118-123	Pillar 3 Environmental and Biodiversity Conservation
103-2	The management approach and its components	76, 79, 118-123	Pillar 3 Environmental and Biodiversity Conservation
103-3	Evaluation of the management approach	76, 79, 118-123	Pillar 3 Environmental and Biodiversity Conservation
<b>GRI 304: Biodiversity 2016</b>			
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	119-122	Biodiversity Audits; Wetlands Arboretum
304-3	Habitats protected or restored	119-121	Biodiversity Audits; IUCN Red List of Endangered Species
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	119-121	Biodiversity Audits; IUCN Red List of Endangered Species
<b>EMISSIONS</b>			
<b>GRI 103: Management Approach 2016</b>			
103-1	Explanation of the material topic and its Boundary	77, 82-83, 87-88	Pillar 1 Sustainable Planning and Design for Construction; Alleviating Environmental Impact by Reducing Our Emissions
103-2	The management approach and its components	76-77, 82-83, 87-88	Pillar 1 Sustainable Planning and Design for Construction; Alleviating Environmental Impact by Reducing Our Emissions
103-3	Evaluation of the management approach	76-77, 82-83, 87-88	Pillar 1 Sustainable Planning and Design for Construction; Alleviating Environmental Impact by Reducing Our Emissions
<b>GRI 305: Emissions 2016</b>			
305-1	Direct (Scope 1) GHG emissions	87-88	Alleviating Environmental Impact by Reducing Our Emissions
305-2	Energy indirect (Scope 2) GHG emissions	87-88	Alleviating Environmental Impact by Reducing Our Emissions

GRI Standards	Disclosure	Page number(s)	Section Header/Subsection Header
<b>WASTE</b>			
<b>GRI 103: Management Approach 2016</b>			
103-1	Explanation of the material topic and its Boundary	77, 82-83, 90-91	Pillar 1 Sustainable Planning and Design for Construction; Promoting Circularity in Our Operations through Efficient Waste Management
103-2	The management approach and its components	76-77, 82-83, 90-91	Pillar 1 Sustainable Planning and Design for Construction; Promoting Circularity in Our Operations through Efficient Waste Management
103-3	Evaluation of the management approach	76-77, 82-83, 90-91	Pillar 1 Sustainable Planning and Design for Construction; Promoting Circularity in Our Operations through Efficient Waste Management
<b>GRI 306: Waste 2020</b>			
306-2	Waste by type and disposal method	90-91	Promoting Circularity in Our Operations Through Efficient Waste Management
306-3	Waste generated	90-91	Promoting Circularity in Our Operations Through Efficient Waste Management
<b>GRI 400 SOCIAL TOPIC-SPECIFIC STANDARDS</b>			
<b>EMPLOYMENT</b>			
<b>GRI 103: Management Approach 2016</b>			
103-1	Explanation of the material topic and its Boundary	78, 101	Pillar 2 Our Community and Our Business; Our Workforce
103-2	The management approach and its components	76, 78, 101	Pillar 2 Our Community and Our Business; Our Workforce
103-3	Evaluation of the management approach	76, 78, 101	Pillar 2 Our Community and Our Business; Our Workforce
<b>GRI 401: Employment 2016</b>			
401-1	New employee hires and employee turnover	102	New Employee Hires and Attrition
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	104-105	Employee Compensation and Benefits
401-3	Parental leave	105	Employee Compensation and Benefits
<b>OCCUPATIONAL HEALTH AND SAFETY</b>			
<b>GRI 103: Management Approach 2016</b>			
103-1	Explanation of the material topic and its Boundary	106-112	Safety and Health; Our Approach to COVID-19
103-2	The management approach and its components	106-112	Safety and Health; Our Approach to COVID-19
103-3	Evaluation of the management approach	106-112	Safety and Health; Our Approach to COVID-19
<b>GRI 403: Occupational Health and Safety 2016</b>			
403-1	Workers representation in formal joint management-worker health and safety committees	107, 110	SHE Committee; Our Approach to COVID-19
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	107-108	Safety and Health Performance
<b>TRAINING AND EDUCATION</b>			
<b>GRI 103: Management Approach 2016</b>			
103-1	Explanation of the material topic and its Boundary	78, 94, 101, 109, 113-115, 130-131	Pillar 2 Our Community and Our Business; Developing Our People and Investing in Our Communities; Our Workforce; Safety and Health Programmes and Training; Training and Development; Embracing the Digital Leap through Gamuda Excellence Transformation
103-2	The management approach and its components	76, 78, 94, 101, 109, 113-115, 130-131	Pillar 2 Our Community and Our Business; Developing Our People and Investing in Our Communities; Our Workforce; Safety and Health Programmes and Training; Training and Development; Embracing the Digital Leap through Gamuda Excellence Transformation
103-3	Evaluation of the management approach	76, 78, 94, 101, 109, 113-115, 130-131	Pillar 2 Our Community and Our Business; Developing Our People and Investing in Our Communities; Our Workforce; Safety and Health Programmes and Training; Training and Development; Embracing the Digital Leap through Gamuda Excellence Transformation

SUSTAINABILITY REPORT

GRI Standards	Disclosure	Page number(s)	Section Header/Subsection Header
<b>TRAINING AND EDUCATION (CONT'D)</b>			
<b>GRI 404: Training and Education 2016</b>			
404-2	Programmes for upgrading employee skills and transition assistance programmes	101, 109, 113-115, 130-131	Talent Development and Industry Upskilling; Safety and Health Programmes and Training; Training and Development; Embracing the Digital Leap through Gamuda Excellence Transformation
<b>DIVERSITY AND EQUAL OPPORTUNITY</b>			
<b>GRI 103: Management Approach 2016</b>			
103-1	Explanation of the material topic and its Boundary	102, 104	Promoting Diversity and Equal Opportunity at the Workplace
103-2	The management approach and its components	102-104	Promoting Diversity and Equal Opportunity at the Workplace
103-3	Evaluation of the management approach	102-104	Promoting Diversity and Equal Opportunity at the Workplace
<b>GRI 405: Diversity and Equal Opportunity 2016</b>			
405-1	Diversity of governance bodies and employees	102-103	Promoting Diversity and Equal Opportunity at the Workplace
<b>LOCAL COMMUNITIES</b>			
<b>GRI 103: Management Approach 2016</b>			
103-1	Explanation of the material topic and its Boundary	78, 94-99, 114, 123	Pillar 2 Our Community and Our Business; Empowering Our People and Investing in Our Communities; Yayasan Gamuda; Engaging Our Communities; Gamuda Parks Academy; Employment and Education for the Indigenous Community
103-2	The management approach and its components	78, 94-99, 114, 123	Pillar 2 Our Community and Our Business; Empowering Our People and Investing in Our Communities; Yayasan Gamuda; Engaging Our Communities; Gamuda Parks Academy; Employment and Education for the Indigenous Community
103-3	Evaluation of the management approach	78, 94-99, 114, 123	Pillar 2 Our Community and Our Business; Empowering Our People and Investing in Our Communities; Yayasan Gamuda; Engaging Our Communities; Gamuda Parks Academy; Employment and Education for the Indigenous Community
<b>GRI 413: Local Communities 2016</b>			
413-1	Operations with local community engagement, impact assessments, and development programmes	94-99, 114, 123	Yayasan Gamuda; Engaging Our Communities; Gamuda Parks Academy; Employment and Education for the Indigenous Community

TCFD Statement

In FY2021, Gamuda has chosen to align its sustainability reporting to the Task Force on Climate-related Financial Disclosures (TCFD). The adoption of TCFD is driven by the Group’s commitment to continuously monitor its performance and progress in accordance with climate change as measured against a globally recognised framework. The TCFD adoption also serves to strengthen the Group’s overall management approach, its governance structure as well as strategies in addressing environmental and social impacts arising from climate change.

In its first year of TCFD adoption, Gamuda has endeavoured to align to all four TCFD themes – Governance, Strategy, Risk Management, and Metrics and Targets. It is the intention of Gamuda to improve disclosures going forward.

The table below provides a succinct but detailed explanation of how Gamuda has adopted the specific TCFD themes and recommended disclosures. Where relevant, references are provided to more specific information within the SR2021.

In essence, Gamuda’s management approach to climate change-related impacts centres on the following:

- Leadership including the Board of Directors (Board) oversight on climate change through the environmental, social and governance (ESG) mechanism.
- The strategic consideration is given to climate change is reflected in the development of policies and strategies.
- The continued focus on embedding climate change within the Group’s risk management and mitigation framework.
- The existence of tangible, time-based key performance indicators (KPIs) to measure performance.

Specific Recommendations	Organisation’s Adoption of Recommendations	References
<b>GOVERNANCE</b>		
Describe the board’s oversight of climate-related risks and opportunities.	Climate action sits within the top right quadrant of Gamuda’s FY2021 Materiality Matrix. Hence, it is a matter of most significant concern to both the Group and its stakeholders.	Pages 62-63: Sustainability Governance and Framework
	All material topics of significant concern come under the direct oversight of Gamuda’s Board. The Board maintains strategic oversight on ESG and retains overall responsibility for the Group’s sustainability direction.	
Describe management’s role in assessing and managing climate-related risks and opportunities.	The Board also ensures Management has developed the necessary strategic planning pertaining to climate change. The Board-level Risk Committee ensures corporate risk, audit risk and ESG risk, including climate-related risks are included and monitored. This includes effective risk mitigation response on the realisation of climate-related commitments.	Pages 10-16: Statement from the Group Managing Director  Pages 62-63: Sustainability Governance and Framework
	The Board has oversight on the Gamuda Green Plan 2025 (GGP 2025), which provides Gamuda with its masterplan to address material ESG concerns including climate change and ensure continued business and operational sustainability and value creation.	
Describe management’s role in assessing and managing climate-related risks and opportunities.	The Group Chief Sustainability Officer (GCSO) and the Sustainability Steering Committee (SSC) work closely with the Board to ensure the GGP 2025 is realised through the development and execution of effective strategies and action plans.	Pages 10-16: Statement from the Group Managing Director  Pages 62-63: Sustainability Governance and Framework
	One of the prime focus areas of the SSC is the continued effort to embed ESG material matters including climate change, into the Group’s business model. The SSC closely monitors climate change risks and opportunities for the engineering, construction and property development businesses.	

SUSTAINABILITY REPORT

Specific Recommendations	Organisation's Adoption of Recommendations	References
<b>STRATEGY</b>		
Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	<p>Climate change poses various risks to Gamuda's engineering, construction and property development businesses. The specific risks factors as well as opportunities and supporting details are provided in Pillar 1 of the SR2021.</p> <p><b>CLIMATE CHANGE RISKS:</b></p> <ul style="list-style-type: none"> <li>Impacts on availability of suitable land for development due to changing weather patterns, and lack of water sources.</li> <li>Increased temperatures, more extreme weather conditions may necessitate changes to planning and design, resulting in higher construction and development costs.</li> <li>Bad weather can delay the progress of works and completion of construction.</li> <li>Rising water levels may necessitate changes and additional safeguards.</li> <li>Flash flood events may become more frequent necessitating changes to design plans.</li> <li>Loss of natural climate leads to the destruction of habitats for wildlife and loss of biodiversity.</li> <li>Rising insurance premiums and compliance costs.</li> </ul> <p><b>CLIMATE CHANGE OPPORTUNITIES:</b></p> <ul style="list-style-type: none"> <li>Opportunities to promote environmental awareness across the value chain and customers towards encouraging concerted action for greater cumulative impact.</li> <li>Increased potential to seek government and regulatory support for incentives and other benefits for more sustainable practices.</li> <li>Greater acceptance for use of sustainable designs, materials and features within construction and property development.</li> <li>New business opportunities, i.e. increase adoption of renewable energy.</li> </ul>	<p>Pages 10-16: Statement from the Group Managing Director</p> <p>Pages 58-59: Our ESG Journey: Milestones and Achievements</p> <p>Pages 74-75: Sustainability Risks and Opportunities</p> <p>Pages 76-79: Gamuda Green Plan 2025 – Our Approach to ESG</p> <p>Pages 80-91: Pillar 1 Sustainable Planning and Design for Construction</p> <p>Pages 116-123: Pillar 3 Environmental and Biodiversity Conservation</p>
Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	<p>Gamuda incorporates climate change as a factor in its financial consideration and risk management. A scenario approach is adopted where the potential financial impact for climate resilience design and adoption. This approach also goes towards estimating the cost of implementing necessary safeguards or making changes in design.</p> <p>Gamuda leverages its Building Information Modelling (BIM) technology which allows for a more accurate and efficient approach for planning and design.</p> <p>Gamuda also develops its talent pool of climate change experts comprising both internal and external professionals. These experts support the management and the Board by providing much needed expert knowledge and advisory to enable more informed and effective decision-making.</p> <p>Climate-related impacts are given significant focus in the masterplanning, design, development and construction of projects to achieve optimum resource efficiency and minimise environmental impacts.</p>	<p>Pages 54-55: Foreword</p> <p>Pages 74-75: Sustainability Risks and Opportunities</p> <p>Pages 76-79 Gamuda Green Plan 2025 – Our Approach to ESG</p> <p>Page 94: Develop a Sustainable Pipeline of SMEs in Sustainability and Climate Science</p> <p>Page 113: Embracing Digitalisation via BIM Academy</p> <p>Pages 116-123: Pillar 3 Environmental and Biodiversity Conservation</p> <p>Page 129: BIM Enabling Timely and Intelligent Project Planning and Programming</p>

Specific Recommendations	Organisation's Adoption of Recommendations	References
<b>STRATEGY (CONT'D)</b>		
Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	<p>Gamuda has and continues to plan for a wide range of climate-related scenarios in line with the Science Based Targets initiative (SBTi). The Penang South Islands (PSI) project for example showcases the extent of Gamuda's commitment to planning for the future taking into account climate-related effects such as rising seawater levels and increased ambient temperatures.</p> <p>The PSI is designed to achieve 50 percent reduction in CO<sub>2</sub>e emissions compared to business as usual (BAU) by 2030. Full details are provided in the Pillar 1 disclosures of the SR2021.</p>	<p>Page 77: Gamuda Green Plan 2025 – Pillar 1 (Landmark Penang South Islands Project)</p> <p>Pages 80-91: Pillar 1 Sustainable Planning and Design for Construction</p>
<b>RISK MANAGEMENT</b>		
Describe the organisation's processes for identifying and assessing climate-related risks.	Gamuda's approach to assessing ESG-related risks including climate change is driven by a comprehensive materiality assessment process that involves both internal and external stakeholders.	Pages 67-68: Engaging Our Stakeholders
Describe the organisation's processes for managing climate-related risks.	Due consideration is given in terms of the nature and extent of the climate-related impact, i.e. whether it directly or indirectly impacts the Group and/or its stakeholders, the level of impact over the short, medium and long-term, and the severity of the impact.	Pages 69-70: Materiality
Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	The above-mentioned materiality approach is integrated into the Group's overall risk management framework. Where possible, risks factors are quantified, i.e. are measured in terms of forecasted impact on revenue, earnings and costs. Other metrics used are impacts on productivity.	Pages 74-75: Sustainability Risks and Opportunities
<b>METRICS AND TARGETS</b>		
Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Gamuda measures its energy and water consumption, carbon emissions and waste produced. Metrics used include tonnes CO <sub>2</sub> e for emissions, kWh for electricity consumption, m <sup>3</sup> for water consumption and recycled data, and tonnes for waste generated and recycled.	Page 61: Fulfilling Our Commitments: Progress Made
Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.	Gamuda has provided disclosure on Scope 1 and Scope 2 emissions generated from the Group's operations. Further information on the Group's management approach, evaluation of its approach and performance data are provided in Pillar 1 of the SR2021.	Pages 87-88: Alleviating Environmental Impact by Reducing Our Emissions
Describe the targets used by the organisation to manage climate-related risks and performance against targets.	<p>We are committed to reducing direct and indirect corporate greenhouse gas emissions intensity by 30 percent in 2025, and by 45 percent in 2030.</p> <p>Given our role as an infrastructure and property group, we will achieve the bulk of our carbon reduction targets by enabling renewable energy (RE) supply in buildings and developments under our control and incorporating sustainable masterplanning with green mobility elements designed into our projects.</p> <p>The following tactical targets will drive our aim to cut top-level emissions:</p> <ul style="list-style-type: none"> <li>Reduce urban planning emissions by 35 percent and transport emissions by 10 percent</li> <li>Reduce non-RE consumption by 40 percent</li> <li>Reduce freshwater demand by 65 percent</li> <li>Reduce waste sent to landfills by 50 percent</li> </ul>	Pages 76-79: Gamuda Green Plan 2021 – Our Approach to ESG

SUSTAINABILITY REPORT

SASB Content Index

ENGINEERING AND CONSTRUCTION

Code	Description	2021 Performance
<b>ENVIRONMENTAL IMPACTS OF PROJECT DEVELOPMENT</b>		
IF-EN-160a.1	Number of incidents of non-compliance with environmental permits, standards, and regulations	All projects undertaken by the Group has complied with environmental and social impact assessments. The Group has not been censured or fined in the past three years for non-compliance with regulatory standards.
IF-EN-160a.2	Discussion of processes to assess and manage environmental risks associated with project design, siting, and construction	<p>Gamuda's approach is encapsulated through Pillar 1 of its GGP 2025, Sustainable Planning and Design for Construction which provides comprehensive disclosure of how the Group addresses its environmental risks and overall environmental impacts.</p> <p>Gamuda's construction projects and its developments clearly reflect the approach.</p> <p>All projects showcase a commitment towards minimising environmental footprint by emphasising energy and water efficiency, recycling of waste and preservation or enhancement of the natural environment.</p>
<b>STRUCTURAL INTEGRITY AND SAFETY</b>		
IF-EN-250a.1	Amount of defect and safety-related rework costs	Not available. To be monitored.
IF-EN-250a.2	Total amount of monetary losses as a result of legal proceedings associated with defect- and safety-related incidents	Not available. To be monitored.
<b>WORKFORCE HEALTH AND SAFETY</b>		
IF-EN-320a.1	(1) Total recordable incident rate (TRIR) – Rate of Injury Menara Gamuda	0
	Gamuda Land	0
	Gamuda Engineering (Gamuda Digital IBS, Banting and Sepang)	0.44
	Gamuda Engineering (MRT Putrajaya Line)	0.39
(2) Total fatality rate for (a) direct employees and (b) contract employees	Menara Gamuda	0
	Gamuda Land	0
	Gamuda Engineering (Gamuda Digital IBS, Banting and Sepang)	0
	Gamuda Engineering (MRT Putrajaya Line)	0
<b>LIFE CYCLE IMPACTS OF BUILDINGS AND INFRASTRUCTURE</b>		
IF-EN-410a.1	(1) Number of commissioned projects certified to a third-party multi-attribute sustainability standard	4, Green Building Index (GBI)
	(2) Number of projects seeking such certification	4, Green Building Index (GBI)

Code	Description	2021 Performance
<b>LIFE CYCLE IMPACTS OF BUILDINGS AND INFRASTRUCTURE (CONT'D)</b>		
IF-EN-410a.2	Discussion of process to incorporate operational-phase energy and water efficiency considerations into project planning and design	<p>As mentioned earlier under IF-EN-160a.2, Gamuda continues to pursue resource consumption efficiency through Sustainable Planning and Design for Construction – Pillar 1 of the GGP 2025.</p> <p>Gamuda leverages on its BIM and Digital IBS technologies to incorporate sustainable design features into the developments of homes, building and entire developments.</p> <p>Significant consideration is given to achieve optimum water and energy efficiency right from the master-planning and design stages. This is to ensure the most efficient possible environmental footprint is achieved over the life cycle of the project or structure.</p> <p>The PSI project exemplifies the aforementioned with further information provided on pages 77, 82, 86, 88-89.</p>
<b>BUSINESS ETHICS</b>		
IF-EN-510a.2	Total amount of monetary losses as a result of legal proceedings associated with charges of (1) bribery or corruption and (2) anti-competitive practices	0
IF-EN-510a.3	Description of policies and practices for prevention of (1) bribery and corruption, and (2) anti-competitive behaviour in the project bidding processes	<p>Gamuda has established a robust and comprehensive governance structure towards ensuring continued good corporate governance and ethical business practices across the Group. This is supported by the Group's Anti-Bribery and Corruption Policy (AB&amp;C Policy).</p> <p>The AB&amp;C Policy serves as the basis for setting what is deemed accepted behaviour expected of Gamuda's employees and its value chain. Relevant stakeholders are obligated to align with the policy and to conduct themselves and all dealings with Gamuda with the expected levels of corporate integrity.</p> <p>Further details are provided on pages 65 and 164.</p>
<b>ENERGY MANAGEMENT</b>		
IF-RE-130a.2	(1) Total energy consumed by portfolio area with data coverage	79,600GJ (22,111,360kWh)
	(2) Percentage grid electricity	Not available. To be monitored.
	(3) Percentage renewable, by property subsector	Not available. To be monitored.
IF-RE-130a.4WW	Percentage of eligible portfolio that (1) has an energy rating; and	Please refer to disclosure provided under IF-EN-410a.1
	(2) is certified to ENERGY STAR, by property subsector	Not applicable to Malaysia

SUSTAINABILITY REPORT

PROPERTY DEVELOPMENT

Code	Description	2021 Performance
<b>WATER MANAGEMENT</b>		
IF-RE-140a.2	(1) Total water withdrawn by portfolio area with data coverage (m <sup>3</sup> ); and Menara Gamuda	12,789
	Managed Infrastructures	227,303
	Construction Sites	110,001
	Operating Plants	5,464
	(2) Percentage in regions with High or Extremely High Baseline Water Stress, by property subsector	Not available.
IF-RE-140a.3	Like-for-like percentage change in water withdrawn for portfolio area with data coverage, by property subsector	Not available. To be monitored.
IF-RE-140a.4	Description of water management risks and discussion of strategies and practices to mitigate those risks	<p>The Group acknowledges that one of the potential impacts arising from climate change and continued environmental degradation is declining or depleted freshwater sources. This could impact land banking and development strategies.</p> <p>However, the scenario also provides opportunities as it stimulates greater demand for treated or recycled water for non-potable commercial applications. This will necessitate more water treatment and wastewater treatment plants, of which Gamuda has expertise in the design, construction and operation of.</p> <p>Further details of Gamuda’s approach to managing water consumption is provided in Pillar 1 of the SR2021 on page 89.</p>
<b>CLIMATE CHANGE ADAPTATION</b>		
IF-RE-450a.1	Area of properties located in 100-year flood zones, by property subsector	Not available. To be monitored.
IF-RE-450a.2	Description of climate change risk exposure analysis, degree of systematic portfolio exposure, and strategies for mitigating risks	<p>Gamuda is cognisant of risk factors arising from climate change and remains fully committed to addressing contributory effects arising from its business operations.</p> <p>Further details are provided in disclosures on Pillar 1 of the SR2021 on pages 80-91.</p>
<b>SASB ACTIVITY METRICS</b>		
IF-RE-000.A	Number of assets, by: active engineering and construction projects	Please refer to page 3 of the Annual Report for more information.
	Number of assets, by active property subsector projects	Please refer to page 3 of the Annual Report for more information.
IF-RE-000.B	Number of commissioned (engineering) projects	Please refer to page 3 of the Annual Report for more information.

Limited Assurance Statement

INDEPENDENT LIMITED ASSURANCE STATEMENT TO THE MANAGEMENT AND DIRECTORS OF GAMUDA BERHAD

**OUR CONCLUSION:**  
**BASED ON THE PROCEDURES WE HAVE PERFORMED AND THE EVIDENCE WE HAVE OBTAINED, NOTHING HAS COME TO OUR ATTENTION THAT CAUSES US TO BELIEVE THAT THE SUBJECT MATTER AS PRESENTED IN GAMUDA BERHAD’S FY2021 SUSTAINABILITY REPORT HAVE NOT BEEN PREPARED AND PRESENTED FAIRLY, IN ALL MATERIAL RESPECTS, IN ACCORDANCE WITH THE CRITERIA DEFINED BELOW.**

Scope of Work

Ernst and Young Consulting Sdn. Bhd. (EY or we) have been engaged by Gamuda Berhad (Gamuda) to perform limited assurance in accordance with the International Standard on Assurance Engagements (ISAE) 3000 Revised, *Assurance Engagement other than Audits or Review of Historical Financial Information*, over selected key performance indicators (KPIs) included in Gamuda’s FY2021 Sustainability Report (SR2021) for the financial year ended 31 July 2021.

Subject Matter

Our limited assurance engagement was performed for the selected KPIs listed in the table below, as presented in the SR2021:

Material Matters	GRI Standards 2016	Selected KPIs	Scope
<b>Biodiversity</b>	Non-GRI	Percentage of landscape areas	Percentage of landscape area for the following projects: 1. Gamuda Cove 2. Gamuda Gardens 3. Jade Hills
<b>Innovation</b>	GRI 404-2(a)	Type and scope of programmes implemented and assistance provided to upgrade employee skills	Type and scope of programmes implemented and assistance provided to upgrade employee skills for the following programmes: 1. Construction Training Unit (CTU)
<b>Safety and Health</b>	GRI 403-2	Types of injury and injury rate (IR)	Types of injury and rates of injury for the following: 1. Nine stations for MRT Putrajaya Line (Underground only) 2. Menara Gamuda 3. Gamuda Gardens Phase 3A and Phase 3B 4. Digital Industrialised Building System (IBS) – Banting Factory
<b>Supply Chain Management</b>	GRI 204-1(a)	Proportion of spending on local suppliers	Percentage of the procurement budget used for significant locations of operation that is spent on suppliers local to that operation for the following: 1. Gamuda Group developments within Malaysia (excluding joint ventures) 2. MRT Putrajaya Line

SUSTAINABILITY REPORT

Material Matters	GRI Standards 2016	Selected KPIs	Scope
Climate Action	GRI 305-2	Scope 2 Greenhouse Gas (GHG) emissions	GHG emissions from the following projects: 1. Gamuda Gardens Sales Gallery 2. Menara Gamuda 3. Digital IBS – Banting Factory
Employee Management	GRI 401-1	Number and rate of new hires and turnover	Gamuda Group excluding subsidiaries in Singapore and Taiwan, joint ventures and associate companies

The scope of our work was limited to the selected KPIs presented in the SR2021 and did not include coverage of data sets or information unrelated to the data and information underlying the selected KPIs and related disclosures; nor did it include information reported outside of the SR2021, comparisons against historical data, or management’s forward-looking statements.

**Criteria**

- The Criteria for our procedures are:
- The Global Reporting Initiative (GRI) Standards 2016; and
  - Gamuda’s relevant policies and procedures

**Gamuda’s Responsibility**

The management of Gamuda is responsible for the collection, preparation, presentation, and implementation of the Subject Matter in accordance with the Criteria; and for implementing appropriate risk management, internal controls and maintaining of records in respect of the Subject Matter so that it is free from material misstatement, whether due to fraud or error; and making estimates that are reasonable.

**Our Independence and Quality Control**

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Our firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

**Our Responsibility**

Our responsibility is to perform our limited assurance engagement to express our conclusion on whether anything has come to our attention that causes us to believe that the selected KPIs and related disclosures as presented in the SR2021 are not prepared, in all material respects, in accordance with the Criteria.

We have performed our limited assurance engagement in accordance with the terms of reference for this engagement agreed with Gamuda, including performing the engagement in accordance with the ISAE 3000, issued by the International Auditing and Assurance Standards Board. This Standard requires that we plan and perform our engagement to obtain limited assurance about whether the selected KPIs and related disclosures as presented in the SR2021 are free from material misstatement.

A limited assurance engagement undertaken in accordance with ISAE 3000 involves assessing the suitability in the circumstances of Gamuda’s use of the criteria specified as the basis of preparation used for the selected KPIs and related disclosures presented in the SR2021, assessing the risks of material misstatement thereof, whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the selected KPIs and related disclosures in the SR2021.

**Summary of Procedures Performed**

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks. The procedures we performed were based on our professional judgement and included inquiries, observation of processes performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records.

Our procedures included, but were not limited to:

- Gaining an understanding of Gamuda’s business, internal processes and approach to sustainability
- Conducting interviews with key personnel and collating evidence to understand Gamuda’s process for reporting performance metrics and disclosures, including inquiring regarding risks of misstatement and quality controls to address risks
- Conducting limited assurance procedures over the selected KPIs and disclosures, including:
  - Undertaking analytical procedures to support the reasonableness of the metric data
  - Checking that the calculation Criteria have been applied as per the methodologies for the selected KPIs within the report
  - Identifying and testing assumptions supporting calculations
  - Testing, on a sample basis, underlying source information to check accuracy of the metric data
  - Performing recalculations of performance metrics using input data
  - Checking that measurements made at the end of the reporting period are timely entered in the records and the sustainability report

We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusions.

**Limited Assurance**

Procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

While we considered the effectiveness of management’s internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

**Inherent Limitations**

Inherent limitations of assurance engagements include use of judgement and selective testing of data, which means that it is possible that fraud, error or non-compliance may occur and not be detected in the course of performing the engagement. Accordingly, there is some risk that a material misstatement may remain undetected. Further, our limited assurance engagement is not designed to detect fraud or error that is immaterial.

There are additional inherent risks associated with assurance engagements performed for non-financial information given the

characteristics of the subject matter and associated with the compilation of source data using definitions and methods for determining, calculating, and estimating such information that are developed internally by management. The absence of a significant body of established practice on which to draw, allows for the selection of different but acceptable measurement techniques which can result in materially different measurements and can impact comparability. The precision of different measurement techniques may also vary. Qualitative interpretations of relevance, materiality and the accuracy of data are subject to individual assumptions and judgements. In particular, where the information relies on factors derived by independent third parties, our assurance work has not included examination of the derivation of those factors and other third-party information.

**Other Matters**

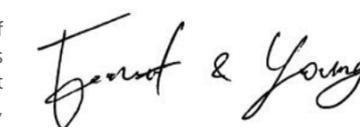
Information relating to prior reporting periods has not been subject to assurance procedures. Our report does not extend to any disclosures or assertions relating to future performance plans and/or strategies disclosed in the SR2021. The maintenance and integrity of Gamuda’s website is the responsibility of Gamuda’s management. Our procedures did not involve consideration of these matters and, accordingly we accept no responsibility for any changes to the selected KPIs and related disclosures, the SR2021 or to our independent limited assurance report that may have occurred since the initial date of presentation on the Gamuda’s website.

**Restriction of Use and Liability**

Our work has been undertaken to enable us to express a limited assurance conclusion on the matters stated above in our report provided to the management and directors of Gamuda in accordance with the terms of our engagement, and for no other purpose.

Our report is intended solely for the management and directors of Gamuda and should not be used by any other parties. To the fullest extent permitted by the law, we do not accept or assume liability to any party other than the directors of Gamuda, for our work, for this report, or for the conclusion we have reached.

We agree to the publication of this assurance report in the SR2021 for the financial year ended 31 July 2021, provided it is clearly understood by recipients of the SR2021 that they enjoy such receipt for information only and that we accept no duty of care to them whatsoever in respect of this report.



**Ernst and Young Consulting Sdn. Bhd.**  
200801010331 (811619-M)

Kuala Lumpur, Malaysia  
29 OCTOBER 2021