



# SUSTAINABILITY

---

60 General Disclosures

---

82 Economic

---

86 Environment

---

100 Social

---



Purple Heron, *Ardea Purpurea*,  
commonly found at Paya Indah Discovery Wetlands

# Sustainability Report

## Build Right. For Life.

WE EMBRACE OUR UNIQUE RESPONSIBILITY AND ABILITY TO SHAPE THE STRATEGY FOR ENVIRONMENTAL AND BIODIVERSITY CONSERVATION AT THE DESIGN, PLANNING AND CONSTRUCTION STAGE. IT IS OUR MISSION TO ENSURE THE EMISSION REDUCTION PLAN IS INCORPORATED INTO A CITY OR A DEVELOPMENT TO ALLOW GREENHOUSE GAS REDUCTION TO BE ADOPTED SEAMLESSLY THROUGHOUT THE PROJECT DEVELOPMENT LIFE CYCLE. THAT WAY, WE DOUBLE DOWN ON OUR EFFORTS BY HELPING THE RESIDENTS OF OUR BUILT ENVIRONMENT AND THE USERS OF OUR INFRASTRUCTURE IN LOWERING THEIR RESPECTIVE CARBON FOOTPRINTS TOO.

Gamuda has accumulated years of experience in fostering positive change and legacies in the economic, environmental, social and governance sphere. Gamuda Parks is the umbrella programme encompassing our efforts in biodiversity and nature conservation and preservation, which are crucial in creating wildlife corridors to mitigate human-animal conflict while protecting endangered wildlife species. An arboretum was established by drawing on the native knowledge of *Orang Asli*, or indigenous people, and the scientific research of arborists to cultivate plant and tree species that suit the habitat, and where appropriate we revive endangered species or reintroduce native species. These trees will later be replanted at our future development sites under the Advance Tree Planting initiative.

We are taking strong guardianship of the Paya Indah Discovery Wetlands to conserve the biodiversity of this natural sanctuary and raise public awareness about the importance of wetlands, which are the habitats to an estimated 90% of the living species in the world.

As a leading engineering and construction company, Gamuda continues to play a prominent role in social enhancement with appropriate training, development, and exposure to our employees, supply chain, stakeholders, and community. We constantly upskill our workforce and contractors to match the increasingly sophisticated infrastructure projects that we embark on, and we often set up specialised training centres that cater to the niche requirements of our undertakings. From the Gamuda Plant Operator School, which raises the competency of machine plant operators, to the Tunnelling Training Academy and BIM Academy, we have partnered with global experts from Siemens, Bosch to Herrenknecht to equip our workers and other industry participants in Malaysia with the best know-how in infrastructure building. With a great emphasis on safety, we have been leading the Malaysian construction industry standards with the establishment of the KVMRT Safety Training Centre.

Gamuda's strengths lie in innovation. This is reflective in Gamuda's cutting-edge projects, the latest of which will be the upcoming Penang South Islands. It is not just a low carbon development; the smart industrial park will be powered by renewable energy, and we are incorporating low carbon mobility into the masterplan to encourage the usage of more bicycles and water transport instead of fuelled-vehicles.

Our innovations have won us international accolades. Our Autonomous Tunnel Boring Machine garnered the Technical Product/Equipment Innovation of the Year award at the 2019 International Tunnelling and Underground Space Association (ITA) Tunnelling Awards in Florida, and received recognition by the British Tunnelling Society in the category of Innovation in Tunnel Excavation 2019 Award, in New Civil Engineering Tunnelling Festival. We also received the coveted Sword of Honour from the British Safety Council last year for upholding safety and health at the workplace for the KVMRT Putrajaya Line project.

Gamuda is actively involved in circular construction, and we are finalising plans to lower our total greenhouse gas emissions over the next two decades towards low carbon by 2030 and carbon neutral by 2040 across all our operations. Corporate decisions will then be aligned with these long-term goals.

We are aware of the urgency to protect the planet against the triple crisis of climate change, biodiversity loss, and unsustainable exploitation of natural resources. The consequences of failing to do so collectively are dire. The evidence is clear that we must tackle this with greater resolve and urgency while elevating sustainability risk management to the top of our corporate agenda. There are four key material matters we are focused on – economic performance, climate action and biodiversity, innovation, and safety and health. In better managing a pandemic crisis, we have set up an internal polymerase chain reaction (PCR) testing lab to support our larger objective of ensuring business continuity.

We have now formalised our value creation strategy in the sustainability framework, anchored on three key pillars – Our People and Community; Planning, Design and Construction as well as Environmental and Biodiversity Stewardship. This is the result of our learnings throughout the journey of sustainability reporting, which has come to the fourth year in 2020.

This year, we share our annual updates on what we have done and what we plan to do to enhance sustainability in our business based on the global frameworks and goals such as the Global Reporting Initiative and the United Nations Sustainable Development Goals. This report provides our stakeholders with a summary of our programmes and efforts in safeguarding a sustainable environment for future generations.

# About This Report



## REPORTING APPROACH

Gamuda Sustainability Report 2020 focuses on the sustainability strategy, current performance and future plans of the Group, namely on the material Economic, Environmental, Social and Governance aspects of business operations.

This report has been prepared in reference to the Global Reporting Initiative (GRI) Standards and aligns to the statutory listing requirements prescribed by Bursa Malaysia Securities Berhad (Bursa Malaysia).

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 Materials established as the reporting perimeters in this report are as stated below:

**GRI 201** Economic Performance 2016

**GRI 304** Biodiversity 2016

**GRI 305** Emissions 2016

**GRI 401** Employment 2016

**GRI 403** Occupational Health and Safety 2016

**GRI 404** Training and Education 2016

**GRI 405** Diversity and Equal Opportunity 2016

**GRI 413** Local Communities 2016



## REPORTING PERIOD

This report refers to the financial year period from 1 August 2019 to 31 July 2020 (unless indicated otherwise).



## SCOPE AND BOUNDARIES

This report covers all our main activities, and key business operations in Malaysia, mainly engineering and construction, and property division for which we have direct managerial control, unless otherwise specified. Accordingly, the following entities have been excluded:

- Our joint ventures and associate companies
- Our water and expressway concessions



## INDEPENDENT ASSURANCE

We have obtained assurance for selected GRI Standard material matters for our current report. We acknowledge the credibility and importance of independent verification and have hereby obtained assurance on selected key sustainability indicators.

Kindly refer to page 127 for the Limited Assurance Statement



## REFERENCES

References to 'Gamuda', 'the Company', 'the Organisation', 'the Group' and 'we' refer to Gamuda.



## FEEDBACK

We value our stakeholders' feedback to continuously improve our reporting and sustainability practices. You are welcomed to contact us at:

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

+603 7491 8288

# Sustainability Report



## MEMBERSHIP

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



## MANAGING OUR SUPPLY CHAIN

Our supply chain has always been a pivotal part of business, especially in creating value beyond the Group. We strive to strengthen the relationship with our suppliers with continuous engagements and instilling good business ethics. Our efforts are centred on ensuring fair and transparent procurement practices through diligent evaluation.

In the last financial year, we have gone up a notch with our digital procurement platform, SAP Ariba e-procurement. The platform allows us to better manage the procurement processes from call for tender process to award. The system is auditable and ensures that the procurement life cycle is more transparent and accurate.

During the Movement Control Order (MCO) when we were working remotely, it became apparent that we had to rethink our approach to business continuity, system availability, accessibility, resilience and security. Hence, we invested in SAP S/4HANA, a new generation cloud-based enterprise resource planning (ERP) platform that will provide the foundation for the Group to current processes and build future business capabilities.

SAP S/4HANA is consistent with our move to become an agile organisation in responding to fast-changing market. Teams are built around end-to-end accountability, where accountability is driven down the leadership chain. This is coupled with ERP making timely, accurate data and analysis available for informed decision-making, and to identify opportunities for innovation and cost reduction.

SAP S/4HANA also enables us to use digital tools to promote process automation; better customer engagement, using analytics to grow sales; and improving productivity and efficient use of raw materials and resources. This encourages less wastage and advocates sustainability throughout our operations.

Gamuda's principles of good procurement practices are governed by the Group Procurement Policy.

Following pre-assessment, regular performance monitoring is conducted throughout the working period upon the awarding of contracts to ensure all supply chains adhere to the necessary requirements that have been outlined and uphold their reputation and credentials beyond just product and service quality.

As part of our process to influence sustainability further into our supply chain, we are revising our evaluation criteria for vendor selection to have more sustainability-related requirements such as biodiversity, environmental management system and sustainability policies. In line with our efforts to create sustainable cities for the communities, we will be evaluating suppliers on their experience in sustainable construction such as green buildings, BIM technology and smart cities for relevant projects moving forward.

Our procurement strategy will focus on building the awareness on sustainability throughout the supply chain and forming strong alliances among vendors to better adopt sustainable construction. As a Group, we want to influence the industry especially our supply chain to better embrace sustainability in the near future.

# Sustainability Achievements

## EdgeProp Malaysia's Best Managed and Sustainable Property Awards 2020

- ILAM Malaysia's Sustainable Landscape Award (Gold) for Horizon Hills
- Building a Sustainable Development Award (Winner) for Gamuda Land

*These awards recognise developers and projects that are designed, built and maintained for sustainable and best-in-class property management.*

## FIABCI World Prix d'Excellence Awards 2020

Master Plan Category (World Gold Award) for Gamuda City

*This award recognises the project that best embodies excellence in all the real estate disciplines involved in its creation. It illustrates concretely the FIABCI ideal of 'providing society with the optimal solution to its property needs'. Some of the key criteria include Architecture and Design, Environmental Impact, and Community Benefits.*

## Malaysia Landscape Architecture Awards 2020

Batu Patong Kelabit Eco Lodge – Green Initiative Award (Excellence)

*This award recognises programmes, events, campaigns or landscape architecture projects that contribute towards the enhancement of city greenery and community well-being.*

## Malaysia Technology Excellence Awards (MTEA) 2020

Winner of Augmented & Virtual Reality – Engineering for BIMAR app

*This award recognises and honours enterprises that lead the charge in developing ground-breaking projects, digital services, reimagined strategies and technological initiatives*

## PropertyGuru Asia Property Awards 2020

Special recognition for ESG, Sustainable Design, Sustainable Construction and Building Communities

*This award recognises real estate developers who are relentless in their pursuit to be socially and environmentally responsible in their day-to-day processes.*

## StarProperty.my Awards 2020

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

*This award goes to the development that has sustainability in mind. The winning project showcases environment-friendly elements in its planning, design and construction processes. Beyond that, the development encourages environmental sustainability as a way of life.*

## British Safety Council 2019

Sword of Honour Award for KVMRT (Sungai Buloh-Serdang-Putrajaya Line)

*This award is bestowed to companies that have demonstrated exemplary management of health, safety and environmental risks, with a five-star rating and a score of at least 92% in previous OSH audit.*

## British Safety Council 2019

International Safety Award Best in Country Award for MMC Gamuda

*This award recognises overall 'best in class' submissions based on submissions from the same country of any industry.*

## British Safety Council 2019

International Safety Award (with Distinction) for KVMRT (Sungai Buloh-Serdang-Putrajaya Line) Underground

*This award recognises organisations from around the world which has shown a true dedication to keeping their workers and workplaces safe.*

## British Safety Council 2019

International Safety Award (Sector Awards under the Construction and Property Activities Category) for MMC Gamuda

*This award recognises overall 'best in class' submissions to the International Safety Awards, by industry sector.*

## EdgeProp Malaysia's Best Managed Property Awards 2019

ILAM Malaysia's Sustainable Landscape Award (Silver) for Valencia

*This award recognises projects and spaces that are designed, built and maintained based on sustainability criteria such as ecological and environmental values, community-oriented planning and design besides aesthetics and creativity.*

## RISM Excellence Awards 2019

Contribution Towards Sustainability in Construction for Gamuda Berhad

*This award recognises concerted efforts in ensuring the socio-economic and environmental viability of the development by creating liveable communities and delivering value through innovation for greater environmental, economic and social impact.*

## StarProperty.my Awards, 2019

Best Health and Wellness Development (Excellence), The Long Life Award 2019 for Horizon Hills

*This award recognises the development with comprehensive health, fitness and rejuvenation facilities. The project is dedicated to providing wellness living and is designed with a holistic approach to provide the residents with opportunities for a healthy lifestyle.*

## Technical Product/Equipment Innovation 2019

### Innovation in Tunnel Excavation 2019

*Winners are recognised by International Tunnelling and Underground Space Association and leading British Tunnelling Society New Civil Engineer (NCE) for the most ground-breaking innovation and outstanding projects in tunnelling and underground space use.*

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

## Forbes – The World's Best Employers 2020

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

*The final list is composed of 750 multinational and large corporations headquartered in 45 countries based on employees feedback on the company's response to the COVID-19 pandemic, image, economic footprint, talent development, gender equality, and social responsibility.*

# Sustainability Report

## Key Highlights

### ECONOMIC



- **BIMAR, an Augmented Reality** application was developed to allow real-world visualisation of 3D building designs via mobile device during site inspections. **Recognised with the Malaysia Technology Excellence Award 2020.**
- **Autonomous Tunnel Boring Machine** uses Artificial Intelligence Control Algorithms to operate TBMs with autonomous control. **Winner of the International Tunnelling and Underground Space Association in Miami & Innovation in Tunnel Excavation 2019 in London.**



**99%**  
Local Malaysian supplier and vendors.



- **Sustainable Building Development**  
The Earth Conscious Award.
- **Best-in-Class Property Management**  
ILAM Malaysia's Sustainable Landscape Award.
- **The Responsible Developer**  
EdgeProp Malaysia's Best Managed and Sustainable Property Awards 2020.
- **Best Property Development**  
Putra Brand Award 2019.




- **Top 84 Council Overall Excellence in Upholding Health and Safety at the Work Place and Acing a Comprehensive Safety Audit**  
Sword of Honour 2019, International Safety Awards 2019 Distinction and Five Star Occupational Health and Safety Audit 2018.
- **The First Malaysian-based company to achieve accreditation**  
from the Office of the Federal Safety Commissioner, the accreditation of Federal Level for work safety and health in the Australian construction sector.
- **Lendlease Safety Award**  
Completing TRX Residences Plot 1C and achieving **450,000 hours** LTI-Free.


### ENVIRONMENT

- **Gamuda Parks Arboretum** set up to introduce and regenerate plant or tree species that suit the habitat.
- Tap on the native knowledge of **indigenous people** and professional studies by arborists to cultivate species in the living-tree museum.

**Guardianship of Paya Indah Discovery Wetlands**, a sanctuary for 244 bird species, 12 mammals and 19 reptiles; about 90% of living species in the world live around wetlands.

Participating in the **IUCN Red List Species Conservation** since 2018.

 **26** flora and **36** fauna species identified under the IUCN Red List.

 **>5% replanted with** 14 endangered tree species.

 Advanced tree planting **5,975 native species** planted.



**Tree Preservation Survey**  
Tree planting, interactive nature board with QR code application, tree tagging and topsoil harvesting.



**280,000** trees in Urban Green Reserve **>1,600 acres.**



As much as **35%** landscaped area in Gamuda developments.

- The **Plate to Plant Campaign** reduces and repurposes food waste generated throughout Gamuda's offices and developments.
- Food-composting machines collect **up to 100kg of food waste daily** at each Gamuda sites, which are processed into organic compost for landscapes in Gamuda developments.



**Penang's Inaugural Climate Action Week 2019**

Riverside Clean-up Programme  
175kg of trash was collected.



**>7,700kg of fabric waste was collected and repurposed**

from Menara Gamuda, twentyfive.7, Jade Hills, Kundang Estates, HighPark Suites and Gamuda Cove.



**Monthly Recycling Drive** with Tzu Chi Foundation.

**SOCIAL**



- COVID-19 preparedness: Gamuda started our own **polymerase chain reaction (PCR) testing lab** and is the **first private Malaysian** company to do so.

Coupled with an in-house ambulance and testing at all our construction sites, Gamuda is among the **most well-equipped local private companies** that is prepared in managing this pandemic crisis with close collaboration with the Ministry of Health.



- Developing the workforce and supply chain through **customised training programmes** such as Gamuda Plant Operator School, Tunnelling Training Academy and BIM Academy.

World-class trainings are designed in **collaboration with global brands** including Siemens, Bosch and Herrenknecht.

**English Language Unit (ELU)**

to enhance the language proficiency among employees. **1<sup>st</sup> construction company in Malaysia** to receive the 2019 Innovation in Assessment Award recognised by the British Council.



- Since 2017, Enabling Academy has trained **63 candidates in 7 batches**, equipping them with relevant skills for employment.
- **60% of graduates** secured jobs at partner companies that share our vision for inclusive, equitable, and sustainable growth.
- Gamuda is the **first private company** to operate such Employment Transition Programme in Malaysia.
- **Produced Malaysia's 1<sup>st</sup> Employment Transition Programme Trainer's Manual** as a resource for special education teachers, vocational trainers and job coaches for people with autism and other disabilities.

**GAMUDA INSPIRATION AWARD**

- Gamuda contributed a **total of RM4 million** to the annual **Star Golden Hearts Award** since 2016, providing a platform for humanitarian works expansion, recognition and promoting the act of kindness and altruism in the society.
- **Four winners** have since received a sum channelling to the social enterprises they champion that benefit their communities.



# Sustainability Report

## Value Creation Strategy

We have enhanced our value creation strategy with the sustainability framework – “Build Right. For Life.” – that blueprints a detailed roadmap to help us achieve sustainable growth while delivering our purpose. As a builder, developer and operator, we are guided to create diverse solutions benefiting the planet, people and Gamuda’s ecosystem of companies and stakeholders.

INPUTS	ESG INTEGRATION
<p><b>Financial Capital</b></p> <p>We create long-term value for our clients, shareholders, business partners and employees. Underpinned by a managerial culture that combines prudent financial management and innovative mindset, we have a business model that generates virtuous growth. We share the benefits of our performance for solid shareholder return.</p>	<p>Build sustainable business revenue and profitability while conserving the environment and improving communities.</p>
<p><b>Organisation &amp; Human Capital</b></p> <p>Under the pack of trust that binds Gamuda’s all-round performance is our capable and dedicated employees. We invested in the human capital development cycle and have adopted a stronger framework so that our human capital is further enhanced for continuous effective contribution while aligning to integrity and transparency practices.</p>	<p>Build a forward-looking organisation that appreciates and invests in our people’s professional development while ensuring their well-being. Influence the supply chain towards adopting ESG and support the local marketplace.</p>
<p><b>Manufactured Capital</b></p> <p>As a builder, developer and operator, we play a key role in the transformation of cities and regions. We endeavour to build a more sustainable world and leverage on our role as a private-sector partner working with the public interest and climate resilience in mind. By applying our core competencies, we invest in innovations and engage our network towards meaningful contributions to the UN SDGs.</p>	<p>Build quality infrastructures and developments, with green and innovative products while creating opportunities for sustained value.</p>
<p><b>Social &amp; Relationship Capital</b></p> <p>We integrate social responsibility issues into the Group’s strategy. We value inclusive performance by being a responsible employer, business partner and community member. Hence, we place our stakeholders’ best interest as part of our decision making process.</p>	<p>Build valued relationships with societies towards integrated partnerships and greater livability.</p>
<p><b>Natural Capital</b></p> <p>We are committed towards a circular economy to conserve and recover natural resources. The implementation of our business lines takes into the account of our stakeholders to reduce carbon footprint across the value chain with forward-looking analysis and solutions for carbon neutrality and improvement in eco-efficiency performance. We apply the ‘avoid-reduce-offset’ principle to our projects. We ensure integration of nature with our design aspirations and products.</p>	<p>Build developments that meet the needs of the present without compromising the natural resources and ability for future generations to appreciate it.</p>



INPUTS



ESG INTEGRATION

Build sustainable business revenue and profitability while conserving the environment and improving communities.

Build a forward-looking organisation that appreciates and invests in our people’s professional development while ensuring their well-being. Influence the supply chain towards adopting ESG and support the local marketplace.

Build quality infrastructures and developments, with green and innovative products while creating opportunities for sustained value.

Build valued relationships with societies towards integrated partnerships and greater livability.

Build developments that meet the needs of the present without compromising the natural resources and ability for future generations to appreciate it.






The Gamuda value creation approach encapsulates and integrates the 17 relevant United Nations Sustainable Development Goals (UN SDGs) for business and financial aspects of ESG performance. We align the five capitals with performance, value creation and specific standards. In recognising the COVID-19 pandemic that has brought the world to uncharted and challenging times, we continue to engage our valued stakeholders closely to help support the business value chain and maintain key priorities such as our employees' well-being and keeping the worksites safe.

VISION AND STRATEGY	VALUE CREATION	VALUE SHARED WITH STAKEHOLDERS
<p><b>VISION</b> We aim to lead the region in innovative breakthrough solutions for large-scale public infrastructure and property development.</p> <p><b>MISSION</b> We reliably deliver innovative world-class infrastructure and premier lifestyle properties for our customers through our core businesses in infrastructure development and construction, operation of infrastructure facilities and property development.</p> <p><b>STRATEGY</b> Our strategy to achieve sustainable growth is based on our 3C's approach – Capacity, Capability and Competitiveness building.</p> <div data-bbox="238 1019 661 1388"> <p><b>Capacity</b> Building through increased human capital investment and major investments in plant and technology</p> <p><b>Capability</b> Development through workforce upskilling, leveraging IT solutions and application of new engineering and construction technologies</p> <p><b>Competitiveness</b> through more effective innovation, improved productivity and reliability</p> </div>	<p><b>ENGINEERING AND CONSTRUCTION</b></p> <ul style="list-style-type: none"> <li>Continue to push ourselves for new engineering innovations by accelerating digitalisation efforts in construction and project management.</li> <li>Upskill and reskill our workforce to use digital tools, mobile devices and automation at the workplace.</li> <li>Constantly streamline the critical processes that make up our value streams.</li> <li>Enhance safety and health awareness and practices at the workplace.</li> <li>Adopt circular construction principles and inculcating a sustainability approach in all our activities.</li> <li>Build on our technological advancement and innovation in tunnelling, underground construction and digital manufacturing of industrialised building systems (IBS).</li> </ul> <p><b>PROPERTY DEVELOPMENT</b></p> <ul style="list-style-type: none"> <li>Emphasis on getting it right from the beginning at the master planning and design stage, building in harmony with the land where nature conservation and biodiversity takes place at a meaningful scale.</li> <li>Take a whole life cycle approach, incorporating low carbon design and construction, promote the use of renewable energy and generate lower emissions throughout the project's lifetime.</li> <li>Differentiated and creative placemaking to catalyse neighbourhood and community development; creating experiences and identities in our developments to connect people to our places.</li> <li>Provide smart infrastructure in our developments with real-time data collection and monitoring for community development and intelligent services.</li> <li>Promote smart mobility and last mile connectivity to complement road transport.</li> </ul>	<div data-bbox="1234 604 1622 739"> <p><b>Revenue</b> RM <b>6.8</b> billion</p> <p><b>Dividend per share</b> <b>6</b> sen</p> <p><b>CORE PBT</b> RM <b>733</b> million</p> </div> <div data-bbox="1234 784 1622 896"> <p><b>3.62%</b> of employee shareholders for share capital</p> </div> <div data-bbox="1234 918 1622 1030"> <p><b>99%</b> spent on local suppliers</p> </div> <div data-bbox="1234 1075 1622 1299"> <p><b>31%</b> women in the workforce</p> <p><b>43%</b> women on Board</p> </div> <div data-bbox="1234 1344 1622 1422"> <p><b>1%</b> workforce is differently-abled/adults with autism</p> </div> <div data-bbox="1234 1444 1622 1545"> <p><b>63</b> Enabling Academy candidates (7 batches) since 2017</p> </div> <div data-bbox="1234 1568 1622 1758"> <p><b>450,000 man</b> hours completed with no loss time injury (Gamuda GEO, the first Malaysian-based sub-contractor to win the Lendlease Safety Award for acing the Global Minimum Requirement)</p> </div> <div data-bbox="1234 1780 1622 1926"> <p><b>Gamuda Land</b> – Winner of the Responsible Developer, EdgeProp Malaysia's Best Managed and Sustainable Property Award 2020</p> </div> <div data-bbox="1234 1948 1622 2060"> <p>Up to <b>35%</b> reserved for landscape area in Gamuda developments</p> </div>
<p><b>VALUES</b></p> <ul style="list-style-type: none"> <li>Take Personal Ownership</li> <li>Walk the Talk</li> <li>Adopt Open and Honest Communication</li> <li>Demonstrate Real Teamwork</li> <li>Develop Our People</li> </ul> <p><b>LEADERSHIP COMPETENCIES</b></p> <div data-bbox="238 1635 661 2060"> <p><b>PEOPLE SAVVY</b> Leading people, Leading with vision, Leading with confidence</p> <p><b>BUSINESS SAVVY</b> Leading results, Leading business</p> <p><b>SELF SAVVY</b> Leading with an open mind and flexibility, Leading change</p> <p>Core Values: Take personal ownership, Walk the talk, Demonstrate real teamwork, Adopt Open and Honest Communication, Develop our people</p> </div>	<p><b>INFRASTRUCTURE CONCESSIONS</b></p> <p>We continue to operate our water and highway concessions that have powered the nation and provided the Group with steady recurring incomes over the years.</p> <p>As Malaysia's largest intra-urban highway concessionaires, we have helped spur the growth of our nation by constructing and operating some of Malaysia's most significant infrastructure projects spanning railways, highways, expressways, dams, water and sewerage treatment plants.</p>	





# Sustainability Report

## Sustainability Risks and Opportunities

Material matters in Gamuda Materiality Matrix have an impact on our ability to create long-term value. These matters influence the Group’s management, which steers the execution of our strategy. We identify matters with risks and opportunities as part of the Risk Management Framework and our Sustainability Framework – *Build Right. For Life.* as guidance in providing solutions for sustainable urbanisation and to reduce ESG-related risks. This approach leads the performance in key focus areas in the

Gamuda Sustainability Framework Pillars	High Priority Material Matters	Sustainable Development Goals	Relevance and Risk	Where Do We See Opportunities	Strategic Response
<ul style="list-style-type: none"> <li><b>Pillar 1</b> Our People, Our Community</li> <li><b>Pillar 2</b> Design, Planning and Construction</li> <li><b>Pillar 3</b> Environmental and Biodiversity Stewardship</li> </ul>	Economic Performance	  	<p>A large part of the Group’s financial and order book development is subject to risks that are market and Government driven, intense competitive landscapes, evolving customer demands, disruptive technology and external implications of geopolitical advances.</p> <p><b>Key Risks</b></p> <ul style="list-style-type: none"> <li>Market and competition risk</li> <li>Financial risk</li> <li>Operational risk</li> </ul>	<p>The Group gives high-level attention to economic performance-related risks, which are reviewed to formulate improved business strategies and responses for pre-emptive actions. This includes strategic investments on acquisitions and disposals that could have a material impact on the Group’s share value.</p> <p>Priority is focused on margins rather than business volume as part of the Group’s disciplined risk management process. The common objective across all the Group entities is to extend our presence in high value-added segments such as smart industrial parks, to strengthen internal synergies for targeted growth in the transport infrastructure projects, and accelerate international growth.</p>	<ul style="list-style-type: none"> <li>Employ digital platforms for agile transformation across our lines of business.</li> <li>Stimulate organisational agility by reskilling and upskilling to higher level all-rounder competencies.</li> <li>Focus on the 3Cs – Capacity, Capability, and Competitiveness.</li> <li>Adopt targeted strategies to develop and retain talent, and achieve diversity.</li> </ul>
<ul style="list-style-type: none"> <li><b>Pillar 2</b> Design, Planning and Construction</li> <li><b>Pillar 3</b> Environmental and Biodiversity Stewardship</li> </ul>	Climate Action and Biodiversity	 	<p>Climate change poses increasingly cascading threats for ecosystems, human health, and the global economy. This is in addition to the construction sector risk as it is heavily reliant on natural resources for its operations and sustained growth.</p> <p><b>Key Risks</b></p> <ul style="list-style-type: none"> <li>Financial risk</li> <li>Operational risk</li> <li>Reputational risk</li> <li>Zoonotic-pandemic related risk</li> </ul>	<p>Builders play an influential role in shaping the transition to a low carbon economy that is crucial to lessen climate change risks. This in turn brings new opportunities and business growth while conserving most of our natural resources.</p> <p>Better and more flexible adaptation strategies, policies, and measures can be put in place to reduce projected climate extremes throughout the project life-cycle analysis. This includes increasing green spaces for social and environmental integration in projects, adopting biodiversity management, and carbon offset programmes for ecological mitigation, protection, and regeneration.</p>	<p>Getting the right mix from the beginning at the integrated master planning and design stage, building in harmony with surroundings.</p> <p>Gamuda Parks to promote biodiversity conservation, enhancement and the preservation of native species.</p> <p>Gamuda Parks Arboretum where arborists can congregate under one umbrella with the aim to preserve and revitalise plants and trees within urban settings and to educate people to care and commune with nature.</p> <p>Stewardship of the Paya Indah Discovery Wetlands with the Selangor State Government will further bolster our efforts to educate the public on climate action, biodiversity conservation and coexisting with nature.</p>

high priority material matters, aligned to the materiality within the key elements of integrated reporting and guidelines by Bursa Malaysia and Global Reporting Initiative (GRI). We undertake well-considered risks to optimise business returns while considering the holistic impact on corporate sustainability.

Gamuda Sustainability Framework Pillars	High Priority Material Matters	Sustainable Development Goals	Relevance and Risk	Where Do We See Opportunities	Strategic Response
<ul style="list-style-type: none"> <li>• <b>Pillar 2</b> Design, Planning and Construction</li> </ul>	Innovation	 	<p>Delay for advancement in innovation impedes growth into new products and areas including challenges to attract and retain talents. Services and products of standard business models may risk obsolescence if the Group is not well-equipped with the changing skillsets from the advent of disruptive technology and market innovators.</p> <p><b>Key Risks</b></p> <ul style="list-style-type: none"> <li>• Technological and cyber risk</li> <li>• Financial risk</li> <li>• Operational risk</li> <li>• Reputational risk</li> </ul>	<p>Double down on our strengths with differentiated planning and technology-enabled project execution and delivery.</p> <p>As an innovative leader in some fronts, we continue to promote a culture of innovation, cultivating a data driven mindset with improvements in data literacy and digital dexterity.</p> <p>Modernise our digital platforms and construction technology to streamline and power our current and future business capabilities.</p> <p>Focus on data as a corporate asset.</p>	<p>Digitalisation is key to ensure our continued relevance and expansion of our business. It enables us to be agile in responding to changes in our operating environment taking into consideration the economic, environmental and social changes in a built setting. These shifts provide opportunities for the Group on the development of eco-efficient solutions that are central to the Group's businesses focused on forward-looking issues for competitive advantage.</p>
<ul style="list-style-type: none"> <li>• <b>Pillar 1</b> Our People, Our Community</li> </ul>	Safety and Health	 	<p>Maintaining a high level of safety and health standards is of paramount importance across the Group, particularly at the construction sites centred around busy urban areas where the risks are greatest.</p> <p><b>Key Risks</b></p> <ul style="list-style-type: none"> <li>• Financial risk</li> <li>• Operational risk</li> <li>• Reputational risk</li> </ul>	<ul style="list-style-type: none"> <li>• Partner with building industry advocates, utilise automation and robotic construction to accelerate the adoption of prefabricated products across the industry and elevate the supply chain for improved quality, safety and productivity.</li> <li>• Institutionalise and embed the experience from the KVMRT Safety Passport Training Programmes across the organisation.</li> <li>• Gamuda Plant Operator School (GPOS) that has been running since 1997 to provide trained heavy equipment and crane operators for the construction industry.</li> <li>• Tunnelling Training Academy (TTA) and Construction Training Centre (CTC) to develop higher skilled workforce, enhance construction standards and uplift safety at the worksites.</li> </ul>	<p>Gamuda is committed to provide a safe, healthy, and conducive environment for its employees, workers, and communities where we have a business presence. The Group clinched the Sword of Honour 2019, International Safety Award Distinction, and Five Star Occupational Health and Safety Audit.</p> <p>In Australia, Gamuda became the first Malaysian-based company to achieve accreditation from the Office of the Federal Safety Commissioner and pre-qualification to work with Transport for New South Wales roadworks level R5, bridgeworks level B4, and financial level F150+ (unlimited).</p>

# Sustainability Report

## Sustainability Governance and Framework

Gamuda as a company that has experience and presence globally, recognise the responsibilities we have in delivering not only quality but ethical and valued services and products. We continue to strive in practising and implementing sound corporate governance practising in all our business activities. We ensure the governance aspects are well aligned to both local and global requirements, especially governance expectations of the country we have businesses with.

In Malaysia, our core business governance mirrors the Malaysian Code on Corporate Governance (MCCG) and adherence to related industrial best practices. The Group is committed to instill good governance through an extensive system of monitoring, meaningful policies, standard processes, training and effective communications.

We govern our sustainability matters (Economic, Environment and Social) through a comprehensive governance structure that is strongly held by risk and business representation. It sees an integrated collaboration by the Board of Directors, Senior Management, Chief Sustainability Officer, Business Leads and Business Representatives.

The risk committee acts independently to ensure long-term sustainability aspects are compliant with the sustainability principles. This all-inclusive governance approach eases our process in identifying regulatory issues and risks, preparing risk mitigation strategies as well as evaluating gap between corporate governance standards and corporate governance practices within the company.

The Board of Directors (BOD) has general oversight of the Group’s sustainability strategy and performance. The BOD reviews the progress and sets the aspirations on sustainability matters. The senior management that is led by the Group Managing Director, oversees the sustainability matters for the Group that include setting the direction, targets and driving the Group’s objectives on sustainability. Working alongside, the Chief Sustainability Officer develops ongoing strategies to operationalise our sustainability programmes, monitors and advises the step progress to support the Group’s sustainability goals.

The Sustainability Steering Committee (SSC) comprises the leads of businesses and sustainability matters (e.g. Biodiversity and Occupational Safety and Health). Together, SSC is responsible for managing all related information and performs assessments on sustainability related programmes.

The Sustainability Working Council (SWC) is responsible for monitoring all related performance data and performing assessments on sustainability related programmes. The SWC meets on a monthly basis while SSC, quarterly to discuss on the Group’s performances and plans. The SWC members act as sustainability ambassadors to promote sustainability within the Group.

### Gamuda Sustainability Governance Structure



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

- Corporate Governance – pages 132 to 151
- Integrity and Governance Unit (Anti-Bribery and Corruption Policy, Code of Business Ethics and Whistleblowing) – pages 150 to 151 or <https://gamuda.com.my/for-investors/corporate-governance/>

**Gamuda Group Sustainability Framework**

**OUR SUSTAINABILITY BLUEPRINT**

**VISION**

We aim to lead the region in innovative breakthrough solutions for large scale public infrastructure and property development.

**MISSION**

We reliably deliver innovative world-class infrastructure and premier lifestyle properties for our customers through our core businesses in infrastructure development and construction, operation of infrastructure facilities and property development.

**STRATEGY**

To achieve sustainable growth through our 3C's approach – Capacity, Capability and Competitiveness.

**OUR PILLARS**

**Pillar 1**

Our People and Our Community

**Pillar 2**

Design, Planning and Construction

**Pillar 3**

Environmental and Biodiversity Stewardship

**OUR FOCUS**

**GOVERNANCE**

**Economic**

- Economic Performance
- Innovation
- Supply Chain Management
- Governance
- Indirect Economic Impacts
- Marketing and Labelling

**Environment**

- Climate Action
- Biodiversity
- Effluents and Waste
- Water Management
- Materials
- Land Remediation, Contamination or Degradation

**Social**

- Safety and Health
- Employee Management
- Customer Satisfaction
- Stakeholder and Community Relations
- Customer Privacy

**OUR GLOBAL ALIGNMENT**



Global Reporting Initiative (GRI)



**OUR APPROACH**

**Our Values**

**Take Personal Ownership**

**Walk the Talk**

**Adopt Open and Honest Communication**

**Demonstrate Real Teamwork**

**Develop Our People**

# Sustainability Report

## Stakeholder Engagement

Our stakeholders are an integral part of our business, thus understanding and addressing their expectations is key towards further strengthening the relationship. The involvement of our key stakeholders is essential to our sustainability journey, particularly in identifying areas for improvements and defining the expectations on our sustainability areas.

We have nurtured a good relationship with our stakeholders by emphasising and prioritising the people, product quality, personalised services, social impact, economic performance and our diligence in complying with relevant laws and regulations.

The table showcased below has been revised as per data we have collated from our engagements with stakeholders throughout FY2020.

Stakeholders	Type of Engagement	Frequency of Engagement	Area of Interest	Outcomes	Addressed by Material Sustainability Matters
<b>Customers</b>	<ul style="list-style-type: none"> <li>Social media</li> <li>Newsletter</li> <li>Circulars and email</li> <li>SnagR/FieldView</li> <li>Gamuda Land mobile application</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 sustainability, 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>
<b>Employees</b>	<ul style="list-style-type: none"> <li>Town hall</li> <li>Meetings</li> <li>SHE committee meetings</li> <li>Trainings 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> </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 sustainability direction and efforts, that include updated policies and plans.</li> <li>Being part of 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>
<b>Suppliers and Contractors</b>	<ul style="list-style-type: none"> <li>E-procurement system</li> <li>Supplier training programmes</li> <li>Supplier evaluation</li> <li>Email</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing</li> <li>As needed</li> <li>Annual/Biennial</li> <li>As needed</li> </ul>	<ul style="list-style-type: none"> <li>Transparency in procurement processes</li> <li>Knowledge sharing and capacity building</li> <li>Implementation of e-Procurement (SAP Ariba and BuildSpace)</li> </ul>	<ul style="list-style-type: none"> <li>Improve awareness on Group's sustainability direction and commitment while understanding the policies, culture and values</li> </ul>	<ul style="list-style-type: none"> <li>Supply Chain Management</li> <li>Governance</li> </ul>

Stakeholders	Type of Engagement	Frequency of Engagement	Area of Interest	Outcomes	Addressed by Material Sustainability Matters
<b>Local Community</b>	<ul style="list-style-type: none"> <li>Community development programmes</li> <li>Info centres for MRT Putrajaya Line</li> <li>Company website and social media</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>Quality, safety, health and environment (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 businesses are present while making a meaningful impact on the societies</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>
<b>Shareholders and Investors</b>	<ul style="list-style-type: none"> <li>In-house, one-to-one and small group meetings with stakeholders</li> <li>Annual General Meeting (AGM)</li> <li>Extraordinary General Meeting (EGM) of Shareholders</li> <li>Financial results announcements</li> <li>Dialogue/teleconference between the Group and investors</li> <li>Non-Deal Roadshows</li> <li>Plan visits/business showcase</li> </ul>	<ul style="list-style-type: none"> <li>Continuous</li> <li>Annually</li> <li>As needed</li> <li>Quarterly</li> <li>Continuous</li> <li>As needed</li> <li>Annually</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>Sustainability 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>
<b>Regulators</b>	<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 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 and Degradation</li> </ul>



# Sustainability Report

## Materiality

### MATERIALITY ASSESSMENT

Evaluation of priority or materiality assessment is a vital part of our sustainability reporting exercise. The process allows us to better align our reporting content to various stakeholder areas of interest while defining our boundaries. Through our five-step materiality assessment, we are able to conclude the utmost important areas of interest on sustainability for the Group.

The closed loop assessment begins with the Group's current state assessment to understand areas of improvement in comparison to the previous years. We utilise media and subject matter's inputs from various experts to identify local and global sustainability trends that are relevant to Gamuda. We ensure that perspectives from our internal and external stakeholders are well accounted via engagements and surveys conducted throughout the financial year.

Based on the stakeholder engagement exercise, we then conduct focus group discussion, meetings and interviews with the management to prioritise the material matters and ensure the materials remain relevant to Gamuda's business.

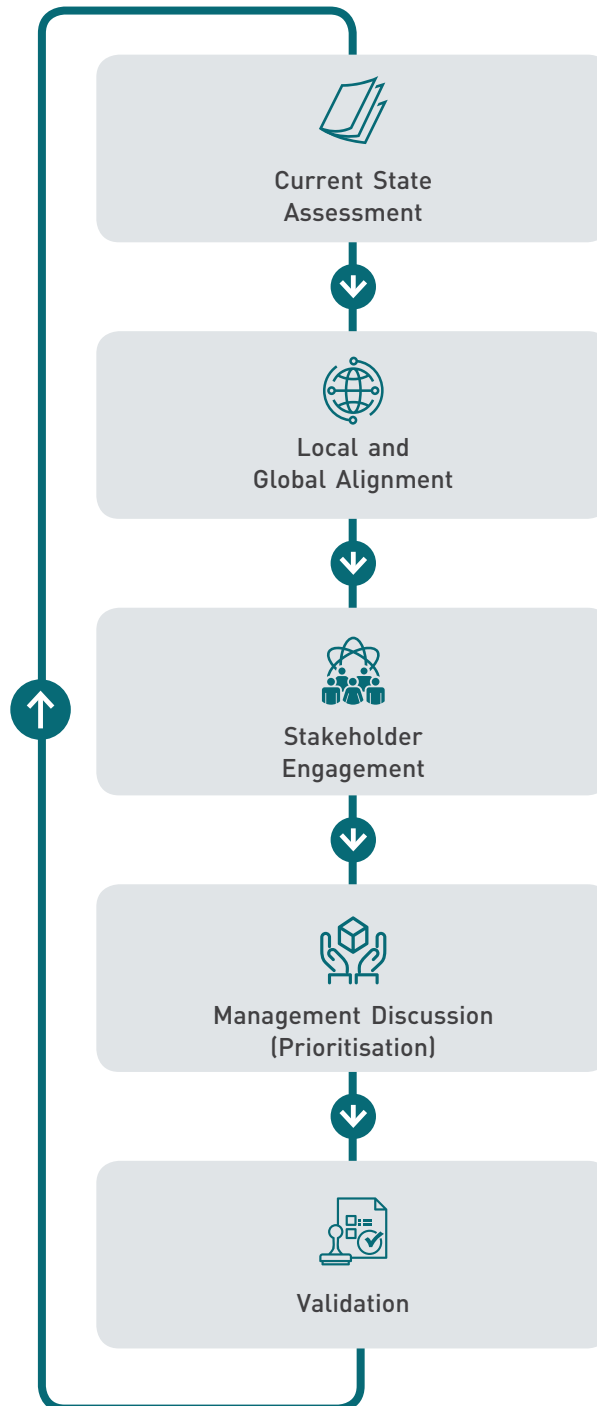
The validation process concludes the material assessment with agreement from the Board on the finalised Materiality Matrix and alignment to the Group's Sustainability Framework.

We aim to review our Materiality Matrix every year against the changing business landscape, emerging trends, regulatory development, as well as insightful stakeholder feedback to ensure we are responding to the issues that have the greatest impact on our business and stakeholders.

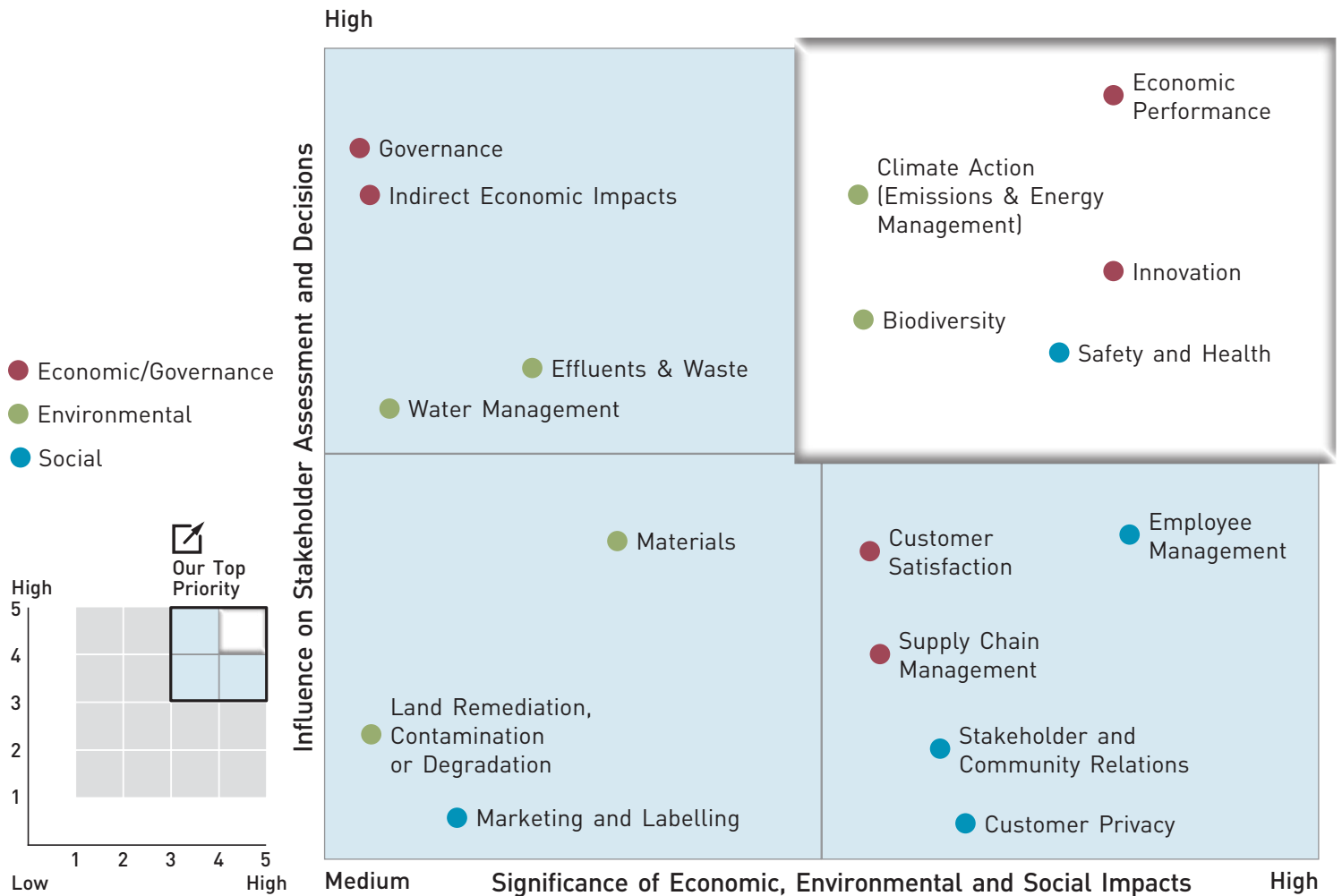
### MATERIALITY MATRIX

In FY2020, we have identified 17 sustainability matters that are based on influence on stakeholder assessment and decisions, and significance of economic, environmental and social impacts (between medium to high). For FY2020, we have revisited and reassessed our sustainability matters. Through our internal material assessment, we concluded to retain all our five (5) material matters. Our material matters focus mainly on climate change (climate action and biodiversity) for environment, safety and health for social, and innovation and economic performance for economic.

### Materiality Assessment Process



Our materiality matrix for FY2020 is illustrated below:



- Economic/Governance**
- Economic Performance
  - Innovation
  - Customer Satisfaction
  - Supply Chain Management
  - Governance
  - Indirect Economic Impacts

- Environment**
- Climate Action
  - Biodiversity
  - Effluents and Waste
  - Water Management
  - Materials
  - Land Remediation, Contamination or Degradation

- Social**
- Safety and Health
  - Employee Management
  - Marketing and Labelling
  - Stakeholder and Community Relations
  - Customer Privacy

# Sustainability Report

## Supporting UN SDGs

The United Nations Sustainable Development Goals (UN SDGs), also known as the Global Goals, is a universal call to action to protect the planet and ensure that everyone enjoys peace and prosperity by 2030. Malaysia together with other world leaders adopted the 2030 Agenda at the United Nations General Assembly in New York on 25 September 2015. This is a global commitment towards a more sustainable, resilient and inclusive development, with 17 Sustainable Development Goals (SDGs) and 169 targets. The 2030 Agenda has been shaped by relevant United Nations (UN) agreements and conventions as well as the experiences and achievements gained through the Millennium Development Goals (MDGs), the global development agenda spanning the period 2000–2015.

### SUPPORTING UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS



 Gamuda Key Support for SDGs

We believe our role as a global citizen, we hold the commitment too alongside the nation and global aspirations such as the UN SDGs. Over the years, we have focussed on three main aspects of sustainability in our “Build Right. For Life.” journey – promoting innovation, creating sustainable cities and emphasising the environment we build at. This is aligned with UN SDG Goals #9 (Industry, Innovation and Infrastructure), #11 (Sustainable Cities and Communities) and #13 (Climate Action).

## SUSTAINABLE DEVELOPMENT GOALS



- Enabling Academy  
[Refer pages 117 to 118](#)
- Gamuda Plant Operator School  
[Refer page 102](#)
- Tunnelling Training Academy  
[Refer pages 103 and 119](#)



- Building a Sustainable Nation  
[Refer pages 80 to 81](#)
- Enabling Academy  
[Refer pages 117 to 118](#)



- Bandar Botanic  
[Refer page 96](#)
- Gamuda Parks  
[Refer pages 97 to 99](#)



- Paya Indah Discovery Wetlands  
[Refer page 99](#)



- International Women's Day  
[Refer page 115](#)
- Women in Engineering  
[Refer page 116](#)



- Autonomous TBM  
[Refer pages 122 to 124](#)
- Building Information Modelling  
[Refer page 125](#)
- Drone Surveying  
[Refer page 121](#)
- Tunnel Boring Machine  
[Refer page 124](#)
- Tunnelling Innovation  
[Refer pages 120 to 121](#)



- E-waste  
[Refer page 95](#)
- Food Waste to Compost  
[Refer page 94](#)



- Gamuda Parks Biodiversity Strategy  
[Refer pages 97 to 99](#)
- IUCN Species Conservation  
[Refer page 98](#)



- Gamuda Gardens Solar Programme  
[Refer page 95](#)



- Enabling Academy  
[Refer pages 117 to 118](#)



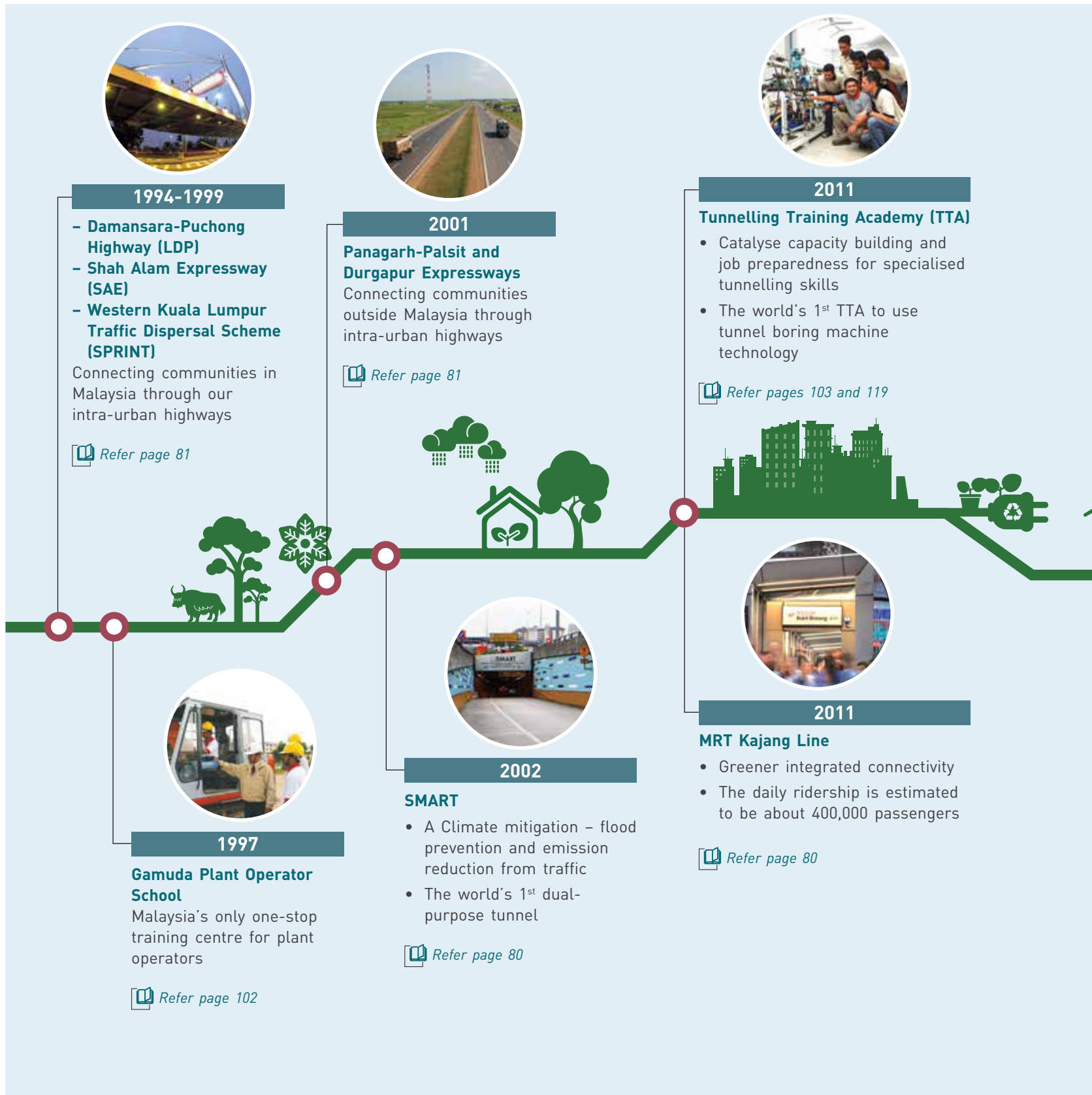
- Gamuda Gardens Solar Programme  
[Refer page 95](#)
- Greenhouse Gases Monitoring and Reporting  
[Refer page 88](#)



- Star Golden Hearts Award  
[Refer page 114](#)

# Sustainability Report

## Our Sustainability Footprint A Timeline Feature





2016

**Gamuda IBS**

- Promoting local digitalisation through new construction technology while reducing Greenhouse Gases
- For building affordable houses
- Upskilling job for tomorrow
- Opportunity for locals

Refer page 81

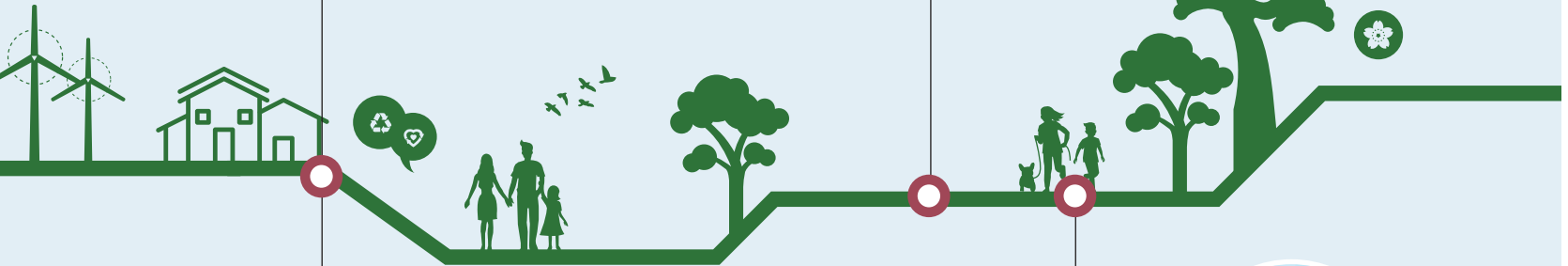


2017

**Enabling Academy**

Preparing more people with autism for gainful and sustainable employment

Refer pages 117 to 118



2016

**Yayasan Gamuda**

Foundation arm that focuses primarily on educational aid, empowering social enterprises and individuals for community improvement

Refer page 126



2018

**Gamuda Parks**

- Ensure biodiversity and communal space is integrated
- Promote flora and fauna in Gamuda developments for biodiversity conservation

Refer pages 97 to 99

# Sustainability Report

## Building A Sustainable Nation How We Have Made Impact

### SMART – A CLIMATE MITIGATION

As a leading builder of urban infrastructure, Gamuda is aware of its responsibility in designing, building and operating structural elements that are both innovative and sustainable. The Group is fully committed to this mission and has been a pioneer in producing infrastructure that not only contributes to improved and more sustained urban development, but also delivers optimal social, environmental and economic outcomes by considering the complex interlinkages between different infrastructure systems and aspects of sustainability.



The 9.7km-long and 13.2m in diameter SMART, or Stormwater Management and Road Tunnel is a showcase of our technological innovation being the world’s first dual-purpose tunnel serving the twin objectives of diverting flood waters and relieving traffic congestion in Kuala Lumpur. SMART has been mitigating stormwater flooding since 2007. To put this into perspective, the rehabilitation costs by the town council for flooding in 1971 amounted to RM36 million, while the 2003 flooding amounted to RM100 million. With SMART, some 30,000 road users are now able to travel safely and comfortably every day.

The project has won praises and accolades, including:

- UN Habitat Scroll of Honour Award in 2011
- CNN listing as one of the world’s Top 10 greatest tunnels
- National Geographic produced a documentary as part of its Megastructure series

#### Our Impact

##### World’s 1<sup>st</sup> dual purpose tunnel

- Mitigate flash floods in Kuala Lumpur City Centre (*sustainable urban design against climate risk*)
- Provide an alternative – reduce traffic congestion and shortening travel time (*reduce carbon footprint from average 30,000 daily riders*)

### GREENER INTEGRATED CONNECTIVITY: MASS RAPID TRANSIT

Rail is one of the most efficient and environmentally friendly mode of public transport. Gamuda is at the forefront of building a greener city in Kuala Lumpur through its involvement in the construction of the Klang Valley Mass Rapid Transit (KVMRT).

The MRT is a greener and cleaner mode of transportation compared to travelling in cars, as the train is estimated to account for only about six percent of carbon emission per passenger. The total carbon emission per passenger for a MRT train is accounted at



37.5g CO<sub>2</sub>, compared with 600g CO<sub>2</sub> for a car and 330g CO<sub>2</sub> for a bus. An affordable and efficient public transportation enhances mobility for the poor and vulnerable groups, thus creating a more inclusive community. A less congested road also greatly improves the livability of the city.

KVMRT forms part of a modern rail-based network that seamlessly integrates with the existing Light Rail Transit (LRT), KL Monorail Line, Keretapi Tanah Melayu Berhad (KTMB) Komuter, Kuala Lumpur International Airport (KLIA) Transit Express Rail Link (ERL), as well as intracity and intercity bus routes. By providing a reliable and affordable public transport system, Malaysia targets to increase the public transport modal share for Kuala Lumpur to 40 percent in 2030, from 12 percent in 2009.

The 51km Kajang Line was the first of the three lines of KVMRT that was opened to the public since 2017, bolstering urban connectivity. The second line connecting the administrative capital of Putrajaya is currently under construction, and is on track for completion by 2023.

#### Our Impact

##### Providing Connectivity for 400,000 commuters per day (MRT Kajang/Putrajaya line)

- Providing a green travel alternative by offsetting vehicles on the road and reduce congestion indirectly (*carbon footprint offset*)
- Provide social connectivity – bridging different economic demographics

**BRIDGING SOCIAL AND ECONOMICAL CONNECTIVITY:  
THE HIGHWAYS**

Gamuda recognises that transportation and mobility are central to sustainable development, especially for a developing country. The construction of roads provides a huge multiplier effect on the local economy by spurring development along the transportation system, thus boosting job opportunities and business activities. Sustainable transportation also enhances economic growth and improves accessibility through the facilitation of people and goods.

Our flagship highway projects include the 34.5km Shah Alam Expressway (SAE), which serves as a major inter-urban expressway connecting several key industrial and residential areas from Kuala Lumpur, Cheras, Petaling Jaya, Subang Jaya, Shah Alam to Klang, terminating at the access road to Westport in Port Klang.



The Damansara-Puchong Highway (LDP), spanning 40km from Sri Damansara to Puchong has spurred the growth and businesses of several major developments along it, including Kepong, Taman Tun Dr Ismail and Bandar Sunway, while opening new growth areas such as Puchong and Penchala. The 26km SPRINT Highway serves as a critical spine road network, supporting infrastructure and catalysing growth and development to the west of Kuala Lumpur.

A joint venture under the Group, Naim Gamuda (NAGA) JV Sdn Bhd is currently building the Pan Borneo Highway package (WPC-04), an 89.4km section from Pantu Junction to Batang Skrang in Sarawak. Through its construction of the Pan Borneo Highway, which connects the two Borneo states, Gamuda is facilitating a sustainable urbanisation in East Malaysia. A UNDP report on Malaysia Inland Waterway Transport System in Sarawak noted that the construction of transport networks in Sabah and Sarawak was trailing the expansion of the road and rail systems in Peninsular Malaysia. The Pan Borneo Highway package (WPC-04) will bolster accessibility to basic infrastructure in rural settlements in the two states and help reduce the urban-rural development gap.

Outside Malaysia, Gamuda has completed the colossal Panagarh-Palsit and Durgapur Expressways in India, and was involved in the construction of the 42.5km Dukhan Highway in Qatar as part of the emirate's road modernisation initiative ahead of the 2022 FIFA World Cup.

**PROMOTING LOCAL DIGITALISATION –  
INDUSTRIALISED BUILDING SYSTEM (IBS)**

The Fourth Industrial Revolution (Industry 4.0) ushered in an era in which the widespread use of digital technology applications such as augmented reality and artificial intelligence are seen across all facets of manufacturing. Industry 4.0 is transforming project deliveries in property development in a way that manufactured homes will now become a mainstay.

To stay at the forefront of this emerging trend, we have led the digital IBS adoption in Malaysia with the nation's first two plants located in Sepang and Banting respectively. Digital IBS is a powerful production system to deliver end products that are error-free with high precision and quality.



We have the capacity to build pre-fabricated homes and bathroom pods at our factory, which will be fully tested prior to installation on-site. This digital manufacturing capability creates higher income job opportunities in Malaysia.

Gamuda actively supports the Construction Industry Transformation Programme (CITP), a national agenda to equip the industry with highly productive, environmentally sustainable and globally competitive players, while focusing on safety and quality standards.

We collaborated with the Construction Industry Development Board (CIDB) to promote IBS and BIM adoption in the housing industry in Malaysia. A strategic partnership was also formed with CIDB's subsidiary, Construction Research Institute of Malaysia (CREAM), to work together on data sharing and information research to help improve construction productivity in Malaysia. This collaboration will produce significant benchmarks for future policy making and implementation of schemes in support of Malaysia's IR 4.0 ambition.

**Our Impact**

**Nation's 1<sup>st</sup> digital IBS factory**

Produces **55%** Greenhouse Gases every month\*

Targeted to build **Affordable Houses**

**Job Opportunity**

\* In-house comparative study conducted on twentyfive.7 Sales Gallery (conventional method) and Gamuda Cove Phase 1A (IBS Technology)



# SUSTAINABILITY REPORT

## Economic

### SUPPORTING THE SDGs

#### Goal 8

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

- 8.1 Promote local businesses and indirectly the local economy through support on local procurement
- 8.2 Promote economy generation through development of projects that are labour-intensive



The Group ensures the business operations are aligned with all our governance aspects. This is essential to further strengthen the trust and confidence of our diverse stakeholders.



## OUR PLAN

- Align to Government's policy to acquire products and services locally first for all our projects and developments
- No discrimination towards suppliers
- Support small and medium-sized suppliers
- Educate local suppliers on new procurement topics such as sustainable supply chain and digital procurement
- All major suppliers need to be of ISO 140001 certified in the future
- Ensure all business operations are aligned with Group's governance aspects

**"Good buildings come from good people,  
and all problems are solved by good design."**

*– Stephen Gardiner*

# Sustainability Report

## DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED

(GRI 201-1)

### WHY IT MATTERS

(GRI 201-1) (GRI 103-1)

Our financial growth is important for us to continue pursuing our business aspirations especially as a regional physical builder. Through positive performance and effective management, our Group strives to sustain investments through new business opportunities and growing operations. Our continuous growth indirectly promotes stronger contribution to gross domestic product (GDP) of the countries we operate, while directly improving local social conditions.

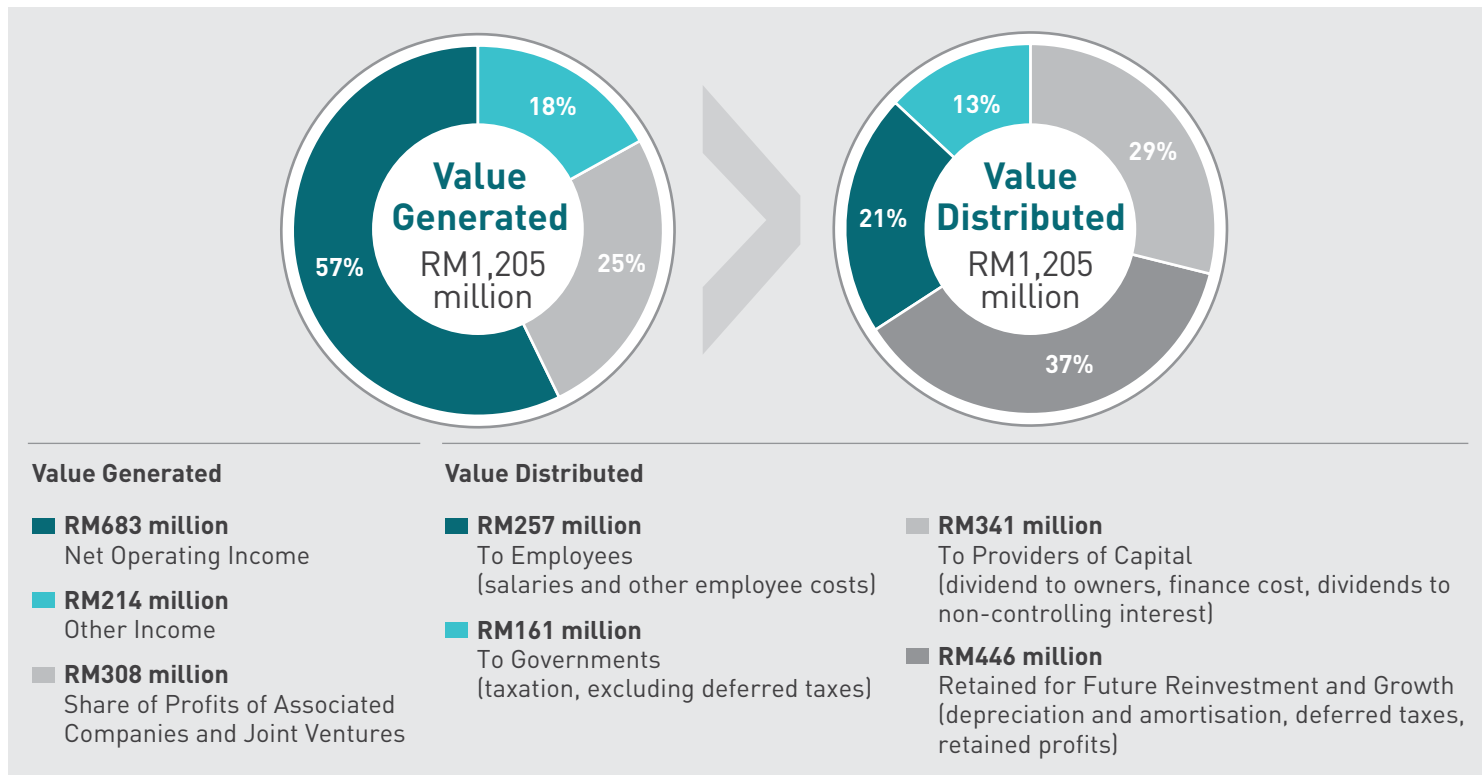


### HOW WE APPROACH IT

(GRI 201-1) (GRI 103-2) (GRI 103-3)



As a Group, we are constantly striving towards the achievement of our goals and targets in the realm of economic performance while upholding our commitment to sustainable operations and the highest professional standards. The Group ensures the business operations are aligned with all our governance aspects. This is essential to further strengthen the trust and confidence of our diverse stakeholders. For further details on our corporate governance aspects, kindly refer to page 132 section of this report.



Our direct economic value distributed to stakeholders in FY2020

Further information on our economic performance can be found in:

- Statement from the Group Managing Director on pages 10 to 18
- Five Years Group Financial Highlights on pages 30 to 31
- Group Segmental Performance on page 32
- Statement of Value Added and Distribution on page 35
- Financial Statements on pages 176 to 351



## LOCAL PROCUREMENT

(GRI 204-1)

### WHY IT MATTERS

(GRI 204-1) (GRI 103-1)

As a leading engineering and construction group in Malaysia, Gamuda was responsible in building some of the nation's most important and strategic infrastructure, including the SMART tunnel, Electrified Double Track Project (Ipoh – Padang Besar) and the Klang Valley Mass Rapid Transit system. As an industry leader and a responsible corporate citizen, we recognise our role in spearheading the advancement of the construction sector by maintaining, nurturing and supporting a vibrant local supply chain. It is crucial for us to ensure that the spillover effect of the country's infrastructure investment properly flows through to medium and smaller contractors and suppliers down the value chain, ultimately achieving the objective of stimulating the local economy.

From the Group's perspective, sourcing locally results in multiple economic benefits. Local procurement contributes to improved risk management as we can secure timely delivery compared to overseas shipment. The Group always proactively engages its local suppliers and that gives us a tighter control over the product quality, as well as the time of delivery, while the total cost is often cheaper to buy local. This helps us to minimise the risk of project delays, cost overrun and ensure quality delivery. Local procurement also allows for more accurate budget forecasting and risk mitigation since many variable factors such as foreign exchange rates, tax implications, shipping and fuel surcharges are more predictable compared to overseas sourcing. Without the need to ship from abroad, we are essentially registering lower carbon footprint by sourcing locally while enabling local supply chain growth.

Gamuda IBS (Industrialised Building System), an end-to-end digital IBS solutions provider, sourced more than 90 percent of its requirements locally. The idea of Gamuda IBS is to mainly serve the local market (Malaysia). The materials sourced are from local suppliers. Even the factory is managed wholly by local talents. Gamuda IBS is a service product that promotes local supply chain while catalysing the local economy.



**99%**  
Spent on local suppliers  
in FY2020

- Local suppliers refer to companies registered in Malaysia.
- The percentage include the whole Group procurement value excluding joint ventures and associates (except for MRT Putrajaya Line – included in the percentage).
- Information for the percentage of spent on local suppliers for FY2020 has been assured through Limited Assurance exercise with Ernst and Young.



### HOW WE APPROACH IT

(GRI 204-1) (GRI 103-2) (GRI 103-3)



We are aligned with the Government's policy to buy local products and services first for all our projects and developments. Our priority is to always procure through local suppliers, unless specified otherwise by a client, or when local suppliers are unable to meet the specified requirements for a certain product or service. We are open to all vendors and suppliers to submit their proposals without discrimination and in support of small and medium-sized suppliers, supplier companies owned by women or suppliers that are owned by or recruit workers from members of vulnerable, marginalised, and under-represented social groups.

In order to formalise and increase our local procurement, the Group has formed partnerships with local suppliers to customise many parts for the use of digital platforms, thereby reducing the need to import. We continuously engage all of our vendors and suppliers to better align our expectations on topics such as sustainability and quality. The Group also provides training for our suppliers and vendors, especially local service providers on newer areas of deliverables to ensure that they are exposed as the global ones. The most recent training that was conducted primarily focused on e-procurement using digitalised platform. We hope to create strong awareness on sustainable supply chain in the upcoming engagements. In extension of that aspiration, we hope to appoint only ISO 14001 certified suppliers as our major supplier by FY2021.

All matters related to local sourcing are overseen by the respective procurement heads of the projects, with the Group Procurement Director leading the group-wide processes for alignment.

### OUR PERFORMANCE

(GRI 204-1)



It is Gamuda's common practice to prioritise domestic sourcing whenever possible, in support of the Malaysian Government's buy local first campaign. This is demonstrated through the 99 percent by value being spent on suppliers in Malaysia throughout FY2020. In a further breakdown, approximately 75 percent of the total amount spent in that year was for suppliers that are based in Greater Kuala Lumpur. The concentration of suppliers on the central region of Peninsular Malaysia reflects our significant locations of operation where most of our ongoing projects are based, which are mostly centred around Greater Kuala Lumpur. The proximity gives us greater assurance in timely delivery of supplies. We will continue striving to maintain at least 95 percent locally sourced product and services for our future projects as a support for our local supply chain.

# SUSTAINABILITY REPORT

## Environment

### SUPPORTING THE SDGs

#### Goal 7

Ensure access to affordable, reliable, sustainable and modern energy for all

- 7.2 Implement and promote renewable energy at townships and developments
- 7.3 Implement and promote energy efficient initiatives at all aspects of design and implementation

#### Goal 12

Ensure sustainable consumption and production patterns

- 12.3 Implement food waste to compost and used to nurture land
- 12.5 Integrate water recycling system, an improved water management approach through on-site treatment plant

#### Goal 13

Take urgent action to combat climate change and its impacts

- 13.2 Promote national carbon reduction targets and policies through various technological implementation and initiatives such as conservation and carbon offset programmes
- 13.3 Educating the younger generation on climate and biodiversity through the GParks Rangers programmes

#### Goal 15

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

- 15.1 Ensure the conservation of flora and fauna especially IUCN Red List
- 15.2 Promote and educate the conservation of environment
- 15.9 Integrate ecosystems such as wetlands into local planning and development processes

#### Goal 17

Strengthen the means of implementation and revitalise the global partnership for sustainable development

- 17.17 Encourage and promote effective public-private partnership for environmental conservation



**Biodiversity underpins the provision of clean air, water and food, and helps mitigate climate change. It also supports human health and adds value to the economy by providing jobs in agriculture, industry, tourism and leisure, and many other sectors via payment through ecosystem services.**



## **OUR PLAN**

- Increase the measuring and reporting scope of our Greenhouse Gas Emissions
- Implement biodiversity conservation and preservation through Gamuda Parks
- Arboretum and congregation of arborists for nature expansion
- Emphasis on biodiversity throughout our construction life cycle
- Strong guardianship of Paya Indah Discovery Wetlands
- Promote renewable energy at our developments
- Encourage advanced tree planting to ensure new trees are introduced to environment at our developments rather than displacing it
- Promote environmental education especially to the younger generation
- Monitor and study IUCN Red List species

**“Right here, right now is where we draw the line.  
The world is waking up. And change is coming  
whether you like it or not.”**

*– Greta Thunberg*

# Sustainability Report



## EMISSIONS

(GRI 305-1) (GRI 305-2)

### WHY IT MATTERS

(GRI 305-1) (GRI 305-2) (GRI 103-1)



In 2019, the earth's surface temperature was almost one Celsius degree warmer than the 20<sup>th</sup> century average. In the last few years, global temperature have been consistently among the hottest on record. The recent exponential change in global temperature and climate related issues are due to an increase in human activities and the demand for energy. Climate change will not only impact communities but also businesses in the long run. Thus, we are actively taking steps to lower our carbon emissions and are open to ideas in providing solutions towards building a low carbon society.

### HOW WE APPROACH IT

(GRI 305-1) (GRI 305-2) (GRI 103-2)



We acknowledge that we are part of an industry that requires high energy consumption and has a significant carbon footprint from our business activities. Thus, understanding our emission sources is vital in order to focus our reduction efforts. In FY2020, we had conducted various simulation, projection and baseline studies on our Greenhouse Gases (GHG). We continue fine-tuning our measurement and monitoring processes to capture more scientific information. For example, we had conducted a Group level measurement and monitoring exercise for Scope 1 and Scope 2 GHG emissions.

Besides evaluating our GHG performance, we practice efficient energy management for our developments. We adopt building energy codes and green building rating tools that allow us to manage energy consumption in a more efficient manner that brings about reductions in carbon emissions at various stages of the building's life cycle. One of our priority stages includes the designing and planning phase. We strive to incorporate sustainable design in all our projects.

Our Mass Rapid Transit (MRT) projects green initiatives:

MRT stations are designed with open-sided concept to allow natural lighting and ventilation (less dependency on electricity in the day). It is estimated to reduce energy consumption by about 30 percent

Trees that were removed during the construction phase are replaced with new landscaping trees with a ratio of 1:2

Construction is performed in a modular process, thus reducing impacted green space for storage and onsite works

During construction, light emitting diode (LED) and compact fluorescent lamps are used. Besides that, CCTV that were installed at the project sites for security are powered by solar panels

### OUR PERFORMANCE

(GRI 305-1) (GRI 305-2)



As a leading engineering and construction company in Malaysia, Gamuda is committed to contribute to the national agenda of reducing GHG emissions intensity of GDP by 45 percent by 2030 relative to the emissions intensity of GDP in 2005. Gamuda is committed to catalysing our nation's pledge towards carbon reduction through the following key aspects:

Reduce GHG and pollutant emissions through the development of climate change strategy and risk assessment

Implement improved data quality control to ensure accurate GHG emissions data

Explore opportunities to participate in GHG partnership programmes

Enhance existing sustainability governance structure to enhance integration of climate change agenda into the Group's sustainability and corporate strategy





# Sustainability Report



## BIODIVERSITY

(GRI 304-1)

### WHY IT MATTERS

(GRI 304-1) (GRI 103-1)



Gamuda believes that biodiversity lies at the heart of sustainable development and human well-being, and its conservation forms the core of the UN 2030 Agenda for Sustainable Development. Biodiversity underpins the provision of clean air, water and food, and helps to mitigate climate change. It also supports human health and adds value to the economy by providing jobs in agriculture, industry, tourism and leisure, and many other sectors via payment through ecosystem services. Biodiversity acts as a key indicator that defines the health of an ecosystem as the more biodiverse the ecosystem, the healthier the environment is for the community to inhabit.

We believe that biodiversity is reflective of the richness, variety and ultimately the health of an environment, and rich natural environments, in turn, support and enrich our living conditions. As a leading property developer, Gamuda Land has always promoted the philosophy of listening to the land and living in harmony with the natural environment, as we realise that connecting with the nature promotes a sense of well-being and keeps us happy.

As we harness the finite land resources for township development, we are fully aware that we need to do this mindfully so as to mitigate and minimise negative impact caused by the project, while at the same time preserving and enriching the natural environment to leave a net positive impact. We are determined to ensure that development and nature preservation can co-exist to improve the living quality for the human being. We acknowledge that it is our responsibility to create a conducive space for our residents while being mindful to the flora and fauna in the vicinity.

At Gamuda Land, our landscape architects are the practitioners of biodiversity preservation as they seek to integrate nature into the spaces at our projects. Marrying biodiversity conservation with our developments was never an afterthought. We believe that studying the biodiversity state of the site before any intervention would make us cautious of the land that we are working on. This is a planning process conducted ahead of time to ensure that the sustenance of the biodiversity is well-kept even years after the township has matured.

### HOW WE APPROACH IT

(GRI 304-1) (GRI 103-2)



We launched Gamuda Parks in 2018 as an overarching programme to maintain the parks within our developments in a systematic and consistent way while providing a platform to consolidate all our related efforts in biodiversity enrichment, conservation, education, and township management. We subsequently formalised the key guiding principles under the Gamuda Parks Biodiversity Policy, of which the strategies and initiatives outlined will be executed by the Gamuda Parks Working Committee.

The role and responsibilities of the Gamuda Parks working committee include design and research to ensure our biodiversity and resource conservation requirements have been incorporated into Gamuda Land's property developments. The committee is also responsible to coordinate audits on the progress of each goal specified in this policy.

In addition, the committee functions as the project manager to liaise with external parties such as environmental consultants and external advisors for site environmental assessments. It provides support in the implementation of biodiversity initiatives during the construction and post-construction phases as well.



We have lined up a robust list of strategies and actions for biodiversity conservation and enrichment, as follows:



**HOW WE MONITOR IT**

(GRI 304-1) (GRI 103-3)



We regularly conduct a biodiversity baseline audit and follow-up with an annual progress report whereby Gamuda Parks will consolidate information from all developments.

An internal audit is conducted for the annual progress report based on the targets stated in Gamuda Parks Biodiversity Policy. Data is consolidated from all developments under Gamuda Land. This is further supported with an external audit involving external advisors to review the findings from the reports by consultants and advise on Gamuda Parks biodiversity action plan.

With this systematic approach in place, we can monitor our biodiversity achievements and progress by comparing results from the annual progress reports with the baseline audit.

**OUR PERFORMANCE**

(GRI 304-1)



The site of Gamuda Cove, a township development by Gamuda Land, is adjacent to areas within the Paya Indah Discovery Wetlands, which has high biodiversity value such as wildlife hotspots.

The area falls under the Protected Landscape category. Gamuda is operating the Paya Indah Discovery Wetlands as part of plans to conserve biodiversity in the area, while raising public awareness through ecotourism. The total operational site measures 1113.85 acres.

The wetlands area reserve and recreational park is located within the Dengkil district in the Selangor state in Malaysia. There are 11 lakes within the wetlands, namely: Tasik Driftwood, Tasik Teratai, Tasik Typha, Tasik Telipok, Tasik Palma, Crocodile Lake, Tasik Resam, Tasik Kuning, Hippo Lake, Tasik Sendayan, and Tasik Rusiga.

In FY2019/FY2020, we spent about RM644,000 on biodiversity conservation programmes. Out of this, Gamuda Parks allocates a budget of RM50,000 to RM70,000 for every biodiversity assessment at a site.

# Sustainability Report

## Integrating Biodiversity and Living Space

Biodiversity has been an integral part of consideration when creating a living space that has a seamless integration of nature and living space. We strive to ensure the original biodiversity of a place is retained or otherwise flourishes under our care. We also believe that the communities and spaces we create deserve a well-planned, clean and safe environment that integrates technologies to enhance the living experience. The integration between needs of living space and nature is our main objective when we create our developments in Gamuda to ensure at least 11 percent of the total development area is reserved as landscape area (above the requirements of the authorities).

No.	Development	Landscape Area (acres)	Percentage of Landscape Area	No. of Trees Planted
1	Kota Kemuning	421.6	23%	82,500
2	Valencia	101.3	35%	16,726
3	Bandar Botanic	192.4	16%	66,770
4	Madge Mansions	0.2	10%	313
5	The Robertson	1.9	63%	634
6	HighPark Suites	3.4	77%	620
7	Jade Hills	57.3	16%	9,454
8	Horizon Hills	357.1	30%	50,513
9	Bukit Bantayan Residences	1.3	7%	629
10	twentyfive.7	17.7	7%	1,472
11	Kundang Estates	21.3	24%	4,351
12	Gamuda Gardens	50.6	6%	12,422
13	Gamuda Cove	25.9	2%	4,752
14	Celadon City	42.79	19%	5,615
15	Gamuda City	24.5	6%	3,896
16	Yen So Park	236.57	42%	20,516
<b>TOTAL</b>		<b>1556</b>		<b>281,183</b>

- Percentage of landscape area is the landscape area/development area.
- Landscape area includes green area, golf course, streetscape planting and waterbody only.
- Information for the percentage of landscape area has been assured through Limited Assurance exercise with Ernst and Young (assurance excludes overseas developments – Celadon City, Gamuda City and Yen So Park).

## INTERNATIONAL UNION FOR CONSERVATION OF NATURE (IUCN) RED LIST SPECIES CONSERVATION

(GRI 304-4)

### WHY IT MATTERS

(GRI 304-4) (GRI 103-1)

Gamuda is fully committed to identify where our operations will pose a threat to endangered plants and animals, and take appropriate steps to safeguard those species from further harm. Our commitment is underscored by an understanding that when a species becomes endangered, it is a sign that the ecosystem is slowly falling apart. Each species that is lost will then trigger a domino effect and lead to further loss of other species within its ecosystem.

Gamuda realises that monitoring and protecting endangered species is a material sustainability issue to us after the occurrence of human-wildlife conflict and coexistence at our construction sites and within our completed developments. For instance, there were concerns among residents at Jade Hills when they encountered wildlife such as bats in the neighbourhood. Since bats play an important role as pollinators, the proposed solution to kill the bats was dismissed, but we had taken pains to keep fruit trees that attract bats further away from the residential units in future developments to maintain a harmonious co-living environment while encouraging pollination.



### HOW WE APPROACH IT

(GRI 304-4) (GRI 103-2)



Apart from the annual biodiversity audit, we have put up nature interpretative signages in Valencia and Gamuda Gardens to help educate our residents about the biodiversity around them to respect the surrounding nature. On top of that, emergency response posters and signages have been added in many of the developments developed by Gamuda Land to inform the residents of the most appropriate measures when encountering wildlife, so as to minimise the risk of danger to both man and wildlife.

We also plan to procure *Hopea Subalata* (Merawan Kanching), a critically endangered species for Gamuda Gardens that is found only within the Kanching Forest Reserves.

### HOW WE MONITOR IT

(GRI 304-4) (GRI 103-3)



We monitor our progress and achievement by comparing results in the baseline biodiversity audit with a subsequent biodiversity audit. This effort is complemented with internal and external audits.

A summary of the audit results for FY2019/FY2020 shows that we have achieved five percent of endangered tree species listed under IUCN for every project during the period.

We recorded 26 flora and 36 fauna species with conservation importance from biodiversity audits, respectively, within the vicinities of Jade Hills, Gamuda Gardens, Gamuda Cove, and Paya Indah Discovery Wetlands, Celadon City and Valencia.

Gamuda Parks planted 6,000 native species of trees in our Advanced Tree Planting nursery, including *Shorea roxburghii* (White Meranti), which is classified as endangered in Malaysia. Gamuda Parks also practices "Legacy Planting" by reintroducing more than 14 endemic tree species of conservation importance for Advanced Tree Planting in Gamuda Gardens, Kundang Estates and Gamuda Cove.



### OUR PERFORMANCE

(GRI 304-4)



The total species with conservation importance under IUCN Red List were recorded from biodiversity audits were 26 flora and 36 fauna species, as listed below.

IUCN Red List Species Identified	Flora	Fauna
Critically endangered	<ul style="list-style-type: none"> <li>• <i>Hopea subalata</i></li> <li>• <i>Kopsia arborea</i></li> </ul>	<ul style="list-style-type: none"> <li>• Yangtze giant soft-shell turtle</li> <li>• Yellow-headed tortoise</li> <li>• Asian forest tortoise</li> <li>• Radiated tortoise</li> </ul>
Endangered	<ul style="list-style-type: none"> <li>• <i>Azelia xylocarpa</i></li> <li>• <i>Anisoptera costata</i></li> <li>• <i>Hopea helferi</i></li> <li>• <i>Shorea roxburghii</i></li> <li>• <i>Pterocarpus indicus</i></li> <li>• <i>Pterocarpus macrocarpus</i></li> </ul>	<ul style="list-style-type: none"> <li>• Malaysian giant tortoise</li> <li>• Masked Finfoot</li> <li>• Yellow-headed temple turtle</li> <li>• Pig-nosed turtle</li> </ul>
Vulnerable	<ul style="list-style-type: none"> <li>• <i>Dalbergia latifolia</i></li> <li>• <i>Dipterocarpus alatus</i></li> <li>• <i>Dipterocarpus chartaceus</i></li> <li>• <i>Dipterocarpus kerrii</i></li> <li>• <i>Hopea mengarawan</i></li> <li>• <i>Hopea odorata</i></li> <li>• <i>Khaya senegalensis</i></li> <li>• <i>Melicope lunu-akenda</i></li> <li>• <i>Pimenta racemose</i></li> <li>• <i>Shorea materialis</i></li> <li>• <i>Swietenia macrophylla</i></li> </ul>	<ul style="list-style-type: none"> <li>• Ambonia box turtle</li> <li>• Black marsh turtle</li> <li>• Giant Asian pond turtle</li> <li>• Javan Myna</li> <li>• Lesser Adjutant</li> <li>• Pig-tailed Macaque</li> <li>• Red-footed tortoise</li> </ul>
Near Threatened	<ul style="list-style-type: none"> <li>• <i>Agathis borneensis</i></li> <li>• <i>Dryobalanops aromatica</i></li> <li>• <i>Elaeocarpus grandiflorus</i></li> <li>• <i>Dypsis lutescens</i></li> <li>• <i>Hopea griffithii</i></li> <li>• <i>Podocarpus polystachyus</i></li> <li>• <i>Shorea sumatrana</i></li> </ul>	<ul style="list-style-type: none"> <li>• Ashy Tailorbird</li> <li>• Black Hornbill</li> <li>• Black Magpie</li> <li>• Black-bellied Malkoha</li> <li>• Buff-necked Woodpecker</li> <li>• Chestnut-bellied Malkoha</li> <li>• Fiery minivet</li> <li>• Glossy Ibis</li> <li>• Grey-headed Fish eagle</li> <li>• Jambu Fruit Dove</li> <li>• Oriental Pied Hornbill</li> </ul>

# Sustainability Report

## INITIATIVE

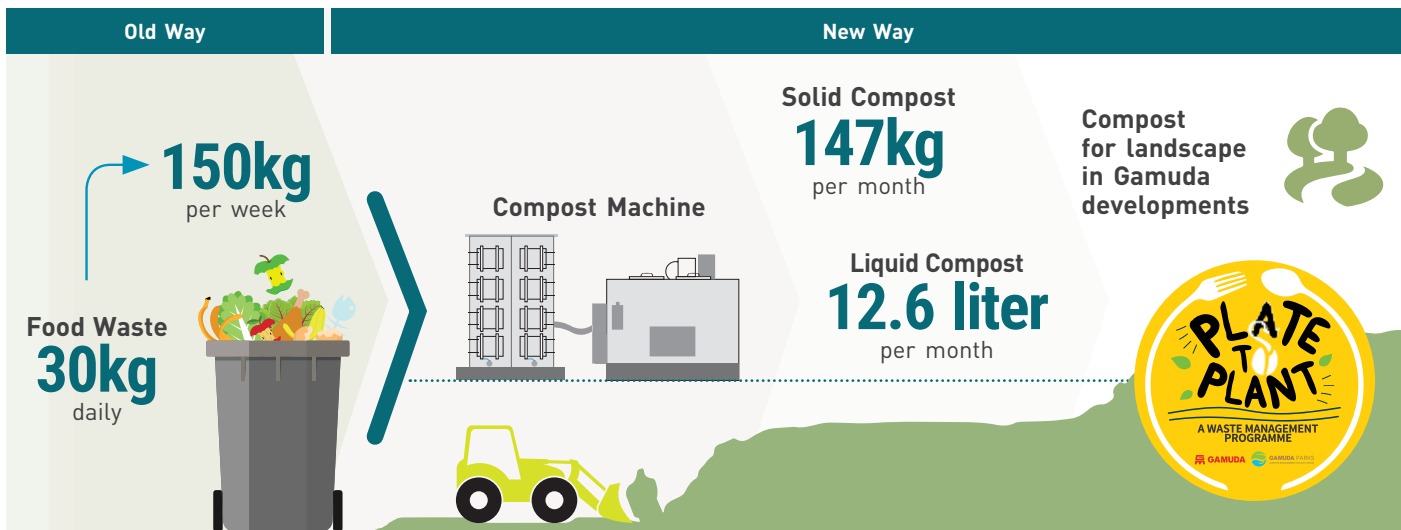
### FOOD WASTE TO COMPOST

The United Nations Food and Agriculture Organisation estimated 1.3 billion tonnes of food waste is generated globally every year. According to Solid Waste Corporation, Malaysians alone generate a whopping 16,688 tonnes of food waste daily – enough to feed 12 million people three times a day.

When food residues decompose in landfills, they emit highly polluting greenhouse gases, of which 47 percent is the combustible methane. Therefore, we should adopt a circular economy to save on handling costs and reduce the bulk of waste that goes to the landfills. By reducing wastage, we

can be more efficient in land and water use, leaving a positive impact on climate change and livelihoods.

A Group-wide Plate to Plant Programme was conducted at Menara Gamuda and Jade Hills to reduce the food waste generated throughout the office blocks and commercial dining outlets. Food composting machines were installed at Menara Gamuda and Jade Hills to collect up to 100kg of food waste daily at each site, while our employees, residents and food operators were encouraged to support this initiative by throwing leftovers into the designated bins.



Food waste to compost

### TUNNEL BORING MACHINE – RECYCLED WATER

Water management plays an important role in the assessment of a construction project’s impact on the environment, particularly in civil engineering. A large amount of water is typically used in the construction process — for cooling, general cleaning, transporting excavated material and to keep pressure on our Tunnel Boring Machines (TBMs). Therefore, to minimise the negative impact of our projects on the environment, we seek to cleanse, reuse and recycle the water at our construction sites as much as possible.

This is achieved by treating our discharged construction effluent with our onsite water treatment plants, following which the treated water will be reused for our tunnel construction processes. This recycled water is also utilised for activities such as wheel washing and dust suppression. We treat about 600 m<sup>3</sup> of water daily at each of our tunnelling construction sites, or 50 percent of our total daily water demand is supplied with recycled water.



Treat about **600m<sup>3</sup>** water daily

About **50%** total daily water

INITIATIVE

E-WASTE

As our lives become increasingly dominated by digital gadgets, we move on to new devices with ever-evolving technology at an increasingly fast pace. However, the improper disposal of old electrical and electronic devices that we leave behind will be detrimental to our health and environment as they contain hazardous components that can leak into our surroundings through landfills.

In view of the rising amount of e-waste that all of us generate as we chase newer technologies, Gamuda held an E-waste Recycling Week on 10 to 16 February this year at our office to facilitate the collection of these old digital devices by a recycler licensed by the Department of Environment under the Ministry of Environment and Water. The encouraging participation from our employees saw us collecting 2,000kg of e-waste including unwanted computer parts, electrical home appliances and gadgets for recycling.



Collected  
**2,000kg**  
e-waste

Held an E-waste  
**Recycling Week**

GAMUDA GARDENS SOLAR PROGRAMME

We seek to reduce our carbon footprint by supporting the usage of renewable energy whenever possible, which also results in savings of electrical bills. We invested RM1.08 million to install solar photovoltaic panels on the rooftop of Gamuda Gardens sales gallery and badminton hall, measuring 1,880 sq metre with a total capacity of 310.2 kWh. The power generated is used to energise the central lake's fountain and waterfall, while the extra energy will be switched for utilisation at the sales gallery.

The project is estimated to result in annual energy saving of about 250,000 kWh on average, with an electricity saving of about RM90,000 per year on average.



Invested  
**RM1.08 million**  
to install solar photovoltaic panels

Measuring  
**310.2 kWh**  
total capacity

Saving of about  
**250,000 kWh**  
average

Saving of about  
**RM90,000**  
per year on average

# Sustainability Report

## ENVIRONMENTAL CONSERVATION

### BANDAR BOTANIC



Our property development division, Gamuda Land, is committed to ensuring the long-term sustainability of its developments. This remains uncompromised years after the projects are completed.

In June 2020, Gamuda Land was named Malaysia's Responsible Developer: Building Sustainable Development Award 2020 at EdgeProp Malaysia's Best Management and Sustainable Property Award. This was in recognition of the company's unrelenting dedication to solve the sewerage problem at its master-planned development Bandar Botanik in Klang, Selangor. The fact that the development and sewerage system had been handed over to the local authorities didn't stop Gamuda Land from delivering on its promise to homebuyers and helped find a solution. The award was proof that we are dedicated to ensure the livability and sustainability of the developments we built which was also awarded the prestigious FIABCI Property Award of Distinction for Best Master Plan in 2003.

Our commitment in upholding the integrity of the developments we built was demonstrated through the task force set up to tackle residents' complaints against deteriorating conditions of the recreational area within the Bandar Botanik developments. Under the facilitation of Gamuda Land, a task force comprising residents' representatives and Klang Municipal Council (MPK)

was formed in May 2020 to oversee the maintenance and cleanliness of the Botanic Park, which was often littered with rubbish and affected by broken and poorly maintained facilities. The once beautiful park was part of Gamuda Land's development planning to create a lush green environment for the community to enjoy the serene beauty of nature, but has gradually fallen into a state of neglect, partly due to the confusion about the park's gazetted status and which authority was responsible for its upkeep.

One of the first initiatives by the task force was to organise the park clean-up which saw about 400 people attended, including residents from surrounding neighbourhoods, volunteers, as well as non-governmental organisations and local authorities. Officials from MPK and the Selangor Drainage and Irrigation Department were also present to listen to the residents' woes.

Among the proposed outcomes achieved through the task force include the engagement of a contractor to take care of the park's cleanliness with another contractor hired by the residents to prune the trees. Both the residents and the authorities also discussed boosting the security around the area to prevent the recurrence of house break-ins through the park, as well as improvement of the lake area to resolve flooding issues during downpours.

**ENVIRONMENTAL CONSERVATION**

**GAMUDA PARKS**

Gamuda Parks was set up in May 2018 to formalise our efforts in land and biodiversity conservation. As a developer, our philosophy is to listen to the land whenever we acquire a new parcel. We seek to work with the land without changing the terrain, allowing it to return to its natural state to encourage the spread of flora and fauna. It's all about mindful planning to conserve existing trees and replanting only species that are native to the land, which will in turn support local birds and insects.

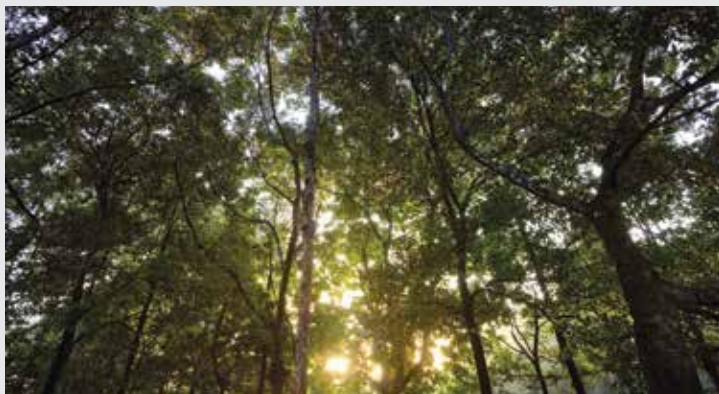
With these efforts, it is rewarding when experts tell us that in our two developments, over 140 species of small mammals, birds and insects can be found. Our guiding principle for conservation has always been to leave the land in better shape than when we first received it. This in turn will provide our residents a natural and sustainable environment to live in harmony with.

**Advanced Tree Planting**

As part of the biodiversity conservation, we conduct advanced tree planting to ensure there will be sufficient greenery in the development and various plant species to create a balanced ecosystem, while promoting native species. We procure desired and identified trees in advance, nurture and monitor them at our nursery for at least two years before planting them onsite so that our township community would not have to wait for the trees to grow. Advanced tree planting is different from transplanting as the young trees are directly planted after transporting, resulting in less stress to the trees and faster recovery.

**Arboretum**

Coming up next in 2021, Gamuda Parks plans to develop an arboretum to regenerate flora and fauna species, and address the issue of climate change and carbon storage value. This includes a horticulture nursery for the propagation of green stock and creating a circular economy from the organic waste for the sustainable use of green resources. The concept is akin to having our private forest reserve institute in which we are able to plant new trees from the seedling stage to preserve the rich variety of trees in Malaysia.



Desired trees are identified in advance

Advanced tree planting to grow

Gamuda Parks plans to develop an arboretum

Regenerate flora and fauna species



# Sustainability Report

## ENVIRONMENTAL CONSERVATION

### GAMUDA PARKS

#### Education

The GParks Rangers programme was created to inspire the younger generation, comprising children aged between five and 12 years old, to care about nature and instil a sense of environmental responsibility within them. During the year, GParks Rangers reinforced the concept of “Living with Nature” to foster environmental sensitivity and further promote nature to the community and the younger generation through their programmes. This is in line with the UN Sustainable Development Goal 4: Quality Education and the National Policy on Biological Diversity 2016-2025.



Inspire the  
**younger  
generation**

comprising children  
aged between  
5 and 12 years old

Care about  
**nature**

and instil a sense  
of environmental  
responsibility

#### IUCN

In the future, we will require all new Gamuda Land developments to conduct a biodiversity audit prior to construction, which will be repeated annually to measure the biodiversity levels by collating information regarding genetic, species and ecosystem diversity. A summary of the endangered species on the International Union for Conservation of Nature (IUCN) Red List found 26 species from six biodiversity audits. We aim to preserve at least five percent of these valuable tree species, and houses various fauna in all of our new developments, subject to site feasibility.



Found  
**26 species**

during our latest  
biodiversity audit

## ENVIRONMENTAL CONSERVATION

### GAMUDA PARKS



#### Paya Indah Discovery Wetlands

We obtained approval in principle to partner with the Ministry of Water, Land and Natural Resources and the Selangor State Government to jointly manage and operate Paya Indah Discovery Wetlands (PIDW). We are dedicated to the conservation of this natural sanctuary to 244 species of birds, 12 mammals and 20 reptiles. We are also dedicated to allocate resources to educate our children about the importance of wetlands biodiversity – it is estimated that about 90 percent of the living species in the world lives around wetlands.

Comprising 11 interlinked lakes, marshes and lowland tropical forests, PIDW is also the natural habitat to 142 aquatic plants and animals, 40 types of fish, as well as 220 types of terrestrial plants and herbs. We have invested about RM6 million to refurbish and upgrade the facilities and amenities in PIDW, but no reconstruction or redevelopment of the area has been done due to its nature of being reserved wetlands and majority of the areas in PIDW are zoned as conservation areas.

We comply with the standards set by The Department of Wildlife and Natural Parks Peninsular Malaysia (PERHILITAN) in all our works at PIDW. In the future, we want to be in compliance with higher international standards with an aim for PIDW to be added to The Ramsar Convention on List of Wetlands of International Importance, known as Ramsar sites, in five to seven years. In addition, we will promote the wetlands as an ecotourism destination, with plans to rebrand it as Discovery Wetlands by adding family-friendly activities such as cycling, fishing, bird watching, horse riding and bamboo trail walking. Hot air balloons will also be set up for those interested to witness the aerial view of the beautiful wetlands.

We hope this nature conservation project will be able to leave a positive impact on the society. We are committed to create a higher environmental awareness to the public by imparting knowledge about protecting and restoring nature to visitors at PIDW. Since the commencement of our conservation project, we observed an improvement of migratory birds in the area with the bird species rising to 244 birds from 225 previously.

Conservation of  
**244**  
**species**  
of birds

Conservation of  
**12**  
**mammals**

Conservation of  
**20**  
**reptiles**

# SUSTAINABILITY REPORT

## Social

### SUPPORTING THE UN SDGs

#### Goal 4

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

4.4 & 4.5 Promote equal access for all women and men, especially youths to have technical skills that prepare them for employment, decent jobs or entrepreneurship

#### Goal 5

Achieve gender equality and empower all women and girls

5.5 Promote women in engineering and management (and Board)

#### Goal 8

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

8.5 Prepare differently-abled people to embrace working environment

#### Goal 9

Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

9.4 Promote innovation and technology that encourages resource use efficiency

#### Goal 11

Make cities and human settlements inclusive, safe, resilient and sustainable

11.1 & 11.3 Catalyse the inclusivity and sustainable urbanisation while integrating sustainable human settlement planning and management

#### Goal 17

Strengthen the means of implementation and revitalize the global partnership for sustainable development

17.17 Encourage and promote effective public-private partnership in catalysing the education and employability of differently-abled people



It is our aim to sustain, support and develop the local communities through education, development programmes, environmental conservation and sustainability advocacy so that we can mutually thrive to build a sustainable planet for the future generations.



## OUR PLAN

- Tunnelling Training Academy – produce a skilled workforce in the highly specialised field of tunnel construction
- KVMRT Safety Training Centre – prioritise safety and health with best-in-class practices
- BIM Academy – promote a qualified and multi-skilled workforce on the latest construction technologies essential in Industry 4.0
- Gamuda Plant Operator School – promote training on machine operation for construction works
- Enabling Academy – enable adults with autism to embrace the working culture and provide employability
- Engaging indigenous communities for education and employment opportunities in biodiversity conservation

“You can dream, create, design, and build the most wonderful place in the world. But it requires people to make the dream a reality.”

– Walt Disney

# Sustainability Report



## TRAINING TYPES

### WHY IT MATTERS

[GRI 404-2] [GRI 103-1]



As a key infrastructure builder, Gamuda conducts high-risk and high-skilled construction works at densely populated areas. Therefore safety is important and we need to ensure our workers are well equipped with the specific knowledge and safety awareness to operate at our project sites, and that the level of competency amongst them is consistent. Establishing our own training centres that cater to the specific requirements of our projects have led to increased work efficiency and allowed us to be more professional as we execute the infrastructure projects.

On the ground for our various projects, we strive to equip all our employees with proper and structured training before they begin work as this is important to ensure all the tools, equipment and machineries are operated in a safe manner. Through proper training, we could reduce downtime and maintenance cost while ensuring the smooth operation throughout the project duration.

### HOW WE APPROACH IT

[GRI 404-2] [GRI 103-2] [GRI 103-3]



**Gamuda Plant Operator School (GPOS)** was established in 1997 to streamline the different competency levels of earthmoving plant operations in Malaysia as prior to that, construction workers learnt to operate tower cranes from experienced colleagues on the job. While it was initially set up as a non-profit centre catering to our own internal needs, GPOS has since extended training services to other construction companies in Malaysia, beyond focusing on just our employees to raise the nation's overall vocational skills and competencies.

GPOS currently offers three categories of training – skills competency, safety, awareness and youth apprenticeship programmes. These programmes enable plant operators to obtain Certificates of Competency, which is recognised by government regulatory bodies such as the Department of Occupational Safety and Health (DOSH) and Construction Industry Development Board (CIDB).

In over two decades, GPOS has trained more than 45,000 trainees in crane and earthmoving plant operation as well as safety and health programmes across the country. Training includes tower crane, crawler crane, mobile crane, gantry or overhead crane, forklift and earthmoving plant operations. GPOS remains the only private training academy for crane operators in the country and since the Government only allows Malaysians

registered with DOSH to be trained as crane operators, we are contributing to the social sustainability of the nation by upgrading the skills of local residents. As many as 75 percent of Malaysia's certified crane operators are trained by GPOS.

Meanwhile, the **KVMRT Safety Training Centre** was established in collaboration with CIDB and National Institute of Occupational Safety and Health (NIOSH) as a pioneering institution aimed at elevating the Occupational, Safety and Health (OSH) standards of the whole MRT Putrajaya Line project. It was set up as part of the plan to reduce risks and practices that are deemed hazardous to address rising public concerns and scrutiny over the construction industry. In line with this objective, the KVMRT project, especially the Putrajaya Line, was made an example by the Government to set the benchmark for best practices for the construction industry in Malaysia.

The purpose-built construction competency and safety training centre covers OSH training as well as skills to train workers involved in specific high-risk jobs and electrified rail infrastructure construction. Based on our experience from the construction of the MRT Kajang Line, the majority of the construction accidents occurred during lifting operations, or workers falling from heights.

Following the opening of the **KVMRT Safety Training Centre**, contractors for KVMRT projects must send their worker for safety induction courses, and we established a safety passport system to ensure that all workers working in the KVMRT project sites must have earned the necessary qualifications. Arrangements were also made to ensure all subcontractors, crane companies, transporters and suppliers also receive adequate training, while free courses were provided to crane operators to ensure they are totally competent to manoeuvre a crane during lifting, considered as one of the most high-risk activities in construction. With increased training and tighter safety strategy, the number of fatality and injury related accidents have declined during the construction of MRT Putrajaya Line compared with MRT Kajang Line.

The **Construction Management Programme (CMP)** is offered via the Construction Training Unit (CTU) to boost the quality of our managers by utilising real site work exposure to train young site supervisors and engineers. This programme facilitates training with internationally benchmarked construction skills adopted from the best practices in Australia, Europe and Singapore to provide a springboard to the careers of trainees in the dynamic construction industry. CMP courses are accredited by CIDB for Civil and Structural or Building and Architectural Works.



The world class **Tunnelling Training Academy (TTA)** is Asia’s first academy designed to produce a skilled workforce in the highly specialised field of tunnel construction, while simultaneously supporting the required specialist skills volume needed to roll out the KVMRT project. Training courses are designed in

collaboration with international experts from Siemens, Bosch to Herrenknecht from Germany, tailoring to the requirements of the projects. We jointly developed the training on the operation and maintenance of the Variable Density Tunnel Boring Machine (VDTBM) with supplier Herrenknecht to cater to the complex geological conditions in Greater Kuala Lumpur. Kindly refer to page 119 for Tunnelling Training Academy.

We are one of the first companies in the Southeast Asian region and among the very few in the world to implement BIM Level 2 for an infrastructure project of this scale and complexity. We are the first main contractor in Malaysia to be BIM Level 2 certified by a leading training and certification body, the British Research Establishment. In furthering the competencies in digital construction, a **BIM Academy** was established with the aim of training over 1,000 employees and subcontractors from 2020-2022 to be able to design and operate this automated process using BIM software for our employees.

**Types of Training conducted by GPOS for FY2020**


**Types of Training**

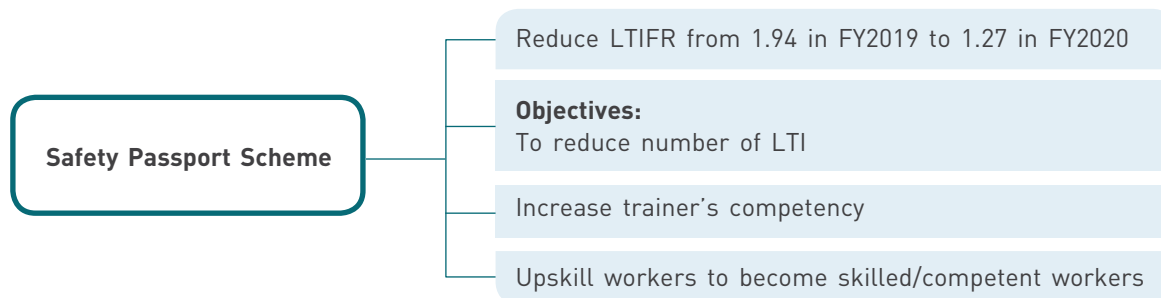
- 1 Rigging and Sligging
- 2 Crane Safety Inspection and Lifting Gears
- 3 Crawler Crane Operator
- 4 Lifting Supervisor\*
- 5 Mobile Crane
- 6 Overhead Crane
- 7 Tower Crane

**Types of Training conducted by BIM Academy for FY2020**

**Types of Training**

- 1 BIM related Training\*
- 2 Viewpoint for Projects (VFP) training\*
- 3 Fieldview (FV) – Combined Installation Programme (CIP) training\*
- 4 Augmented Reality for Construction Validation\*
- 5 Fieldview Training on-sites for data collection\*
- 6 Fieldview Training on Gamuda Building unit sites\*
- 7 Fieldview Training on-sites for COVID-19 QR Code system for temperature tracking and RTK results\*

 \* Information on the type and scope of programmes implemented and assistance provided to upgrade employee skills for FY2020 has been assured through Limited Assurance exercise with Ernst and Young.



# Sustainability Report

## SAFETY AND HEALTH

### WHY IT MATTERS

[GRI 403-2] [GRI 103-1]



Gamuda believes that our people are our most valuable asset, and creating a safe work environment has become the Group's primary objective in ensuring the safety, health and welfare of the people are protected. Our people refers to not only the employees and workers but is inclusive of subcontractors, suppliers and any other person who is impacted by the work we deliver. We trust that by ensuring our construction site is safe, it also keeps the public safe. Construction sites are usually located in busy areas where there is general public movement. Inadequate safety protocols can allow objects to fall on innocent bystanders, putting people not connected to the project at risk.

As safety and health are of paramount importance to the Group, we aim to continuously improve our safety and health performance through robust risk assessments and controls as well as the adoption of best practices and procedures. Our Safety, Health and Environment (SHE) Policy outlines the relevant processes and approach that sets our high safety and health standards while also meeting regulatory requirements. This policy is regularly reviewed to strengthen our safety and health performance and ensure it remains relevant to our business objectives. In FY2020, the Group enhanced the Occupational Safety and Health (OSH) Standard by adopting the Australian standard which meets the requirement beyond Malaysia.

We adhere to stringent safety requirements for all the high-risk activities at our construction sites, such as working at heights, crane and lifting operation, and plant and machinery management to reduce the number of accidents arising from these activities. These safety efforts have resulted in Gamuda's accreditation under the Work Health and Safety Accreditation Scheme administered by the Office of the Federal Safety Commissioner, Australia until November 2022.

By adhering to strict safety and health rules, Gamuda has managed to reduce the number of major injury accidents (Class 1, 2, and 3) involving high-risk activities (working at heights, crane and lifting operation, and plant and machinery) at the workplace from nine cases in FY2019 to four cases in FY2020.

As a leading construction company, having a safe work environment has contributed to safeguarding reputation and supporting our local and international project tenders. Our emphasis on safety and health also boosted the morale of our employees, helped us retain our pool of skilled manpower, and contributed towards developing a safe work culture.



We take lessons learnt from accidents involving high-risk activities and use that as a basis to improve on the gaps in our safety and health practice. A thorough and transparent investigation will be conducted in the event of an accident to identify any gaps in work process, and the investigation findings will be used to enhance our process to prevent recurrence of the incident. Subsequently, we conduct ongoing monitoring and evaluation of the enhanced process to maintain its effectiveness.

### HOW WE APPROACH IT

[GRI 403-2] [GRI 103-2] [GRI 103-3]



Our safety and health standard is governed by the QSHE Policy (Quality, Safety, Health and Environment) established by Gamuda Berhad and Gamuda Engineering Sdn Bhd, and signed by the managing directors of both companies.

The policy stipulates that Gamuda is committed to being an industry leader in QSHE by providing timely delivery of quality products and services, safe and healthy working condition and an environmentally sustainable and responsible approach to our business.

We aim to meet the needs and expectations of our customers and other stakeholders, and we either comply with or exceed the relevant legal and other requirements when it comes to safety and health standard. We are determined to prevent safety and health incidents and environmental pollutions by continuously improving our QSHE management system and performance to uphold the safety and health standard.

Gamuda is driven to integrate the QSHE requirements into our business processes by inculcating a self-regulating mindset in our employees by encouraging them to take personal ownership of all safety and health matters. Our projects are built from teamwork and we seek to keep everyone safe by adopting open and honest communication to foster real teamwork. Most importantly, we want to develop our people so that they are equipped with sufficient skills and knowledge to keep everyone safe at work.

The proper methodology is in place to keep track of our OSH performance and progress in a systematic way. At Gamuda, safety is everyone's responsibility, all the way from the top management to the workers on the ground. To uphold the standard, we have set KPIs for every project sites and these results are reflected in Gamuda's OSH performance.

Gamuda has dedicated substantial resources to maintain and enhance our OSH performance. There are dedicated OSH Team at the headquarters and our project sites, and we regularly conduct OSH-related training.

In line with the Group's digitalisation strategy, we are gradually digitalising some processes. We have digitalised OSH monitoring, evaluation and performance analysis using Fieldview and Tableau. We started using Fieldview for SHE Inspection in the previous year. This year, the usage of Fieldview has been expanded to Internal Audit, PTW Implementation, Plant and Machinery Inspection and Site Daily Progress Report.

Gamuda adopts an integrated management system for our OSH processes. This is certified under ISO 9001, 14001 and 45001.

We are constantly monitoring our OSH practice through regular daily and weekly inspections, in addition to Safety and Health Committee inspection and monthly Inspection by SHE personnel at the project sites. This is enhanced by the internal audit as well as external audit conducted by a certification body such as SIRIM. Our operations in Australia is subjected to inspection by the Federal Safety Commissioner (FSC) Australia.

At Gamuda, all safety and health related matters come under the oversight of the Head of QSHE Department. At the project level, this is the responsibility of the respective heads of projects.

We have maintained a zero non-conformance report (NCR) for the past 11 years consistently for the SIRIM audit result. The 5-Star SHASSIC award was presented to RSKU Puncak Bestari, RSKU Bandar Serai and RSKU Cyber Valley from Construction Industry Development Board (CIDB) during CIDB SHASSIC Day 2020. We also obtained TABAS (Tapak Bina Sejahtera) for RSKU Cyber Valley from Majlis Perbandaran Sepang.

Training and development for employees and workers in FY2020:



Safety, Health and Environment induction for all new employees



Emergency Response Team (ERT) training by internal and external parties (e.g. BOMBA and St John Ambulance)



Safety, Health and Environment (SHE) Work Instruction on High-Risk Activities Training



Emergency Drill



Competency Training (e.g. Integrated Management System (IMS) Lead Auditor, Rigging and Slings, Scaffold Inspector and Lifting Supervisor)

### SHE Committee

SHE committee is established at all project sites to lead the implementation of SHE initiatives and to monitor SHE performance. SHE committee meetings are conducted at least once a month to serve as a platform in ensuring timely communication and effective Hazard Identification, Assessment of Risk and Opportunity, and Controls (HIAROC) process implementation. Employees and workers may also communicate and provide feedback to management through the following channels:

- 1 **Toolbox and pre-task briefing**
- 2 **Involvement in HIAROC during Job Safety Analysis and Method Statement review**
- 3 **During incident investigation process**
- 4 **Discussions during corporate and project level SHE committee meetings**
- 5 **Management Review Meetings**

The SHE committee team carries out regular site visits to guide our workers in implementing the Group's best practices and minimising harm at the workplace. We have put in place an Incident Investigation and Reporting procedure to respond to any safety and health related occurrences reported by employees or workers on site. Incidents reported will be investigated by trained personnel and preventive or mitigating actions will be implemented. Data and trends gathered from these incidents will be reviewed critically to enhance existing SHE strategies and procedures.



# Sustainability Report

## OUR PERFORMANCE

(GRI 403-2)



The close attention given to OSH has led to several awards and recognitions. Gamuda Engineering was accredited by Office of the Federal Safety Commissioner, Australia (OFSC), 5-Star SHASSIC Award and British Safety Council Award, just to name a few. Gamuda Land, on the other hand was awarded EdgeProp Malaysia's Responsible Developer: Building Sustainable Development Award 2020 in June.

Gamuda Land was also praised by Malaysia's Works Minister Dato' Sri Haji Fadillah Yusof for stepping up its precautionary workplace actions as part of COVID-19 containment measures, which exceeded the benchmark imposed by the industry regulator, CIDB. The Works Ministry visited twentyfive.7 development in June 2020 for a construction site inspection to ensure developers in the country are keeping up with CIDB's new standard operating procedure (SOP).

### MRT Putrajaya Line

Total Man-Hours Worked	Average Man-Power	Class 1	Class 2	Class 3	Class 4	Injury Rate*	Total Work Day Lost	Lost Day Rate#
29,647,276	12,957	0	1	18	57	0.51	441	2.97

- Class 1 - An incident that results in the death of an employee due to an occupational activity
- Class 2 - An incident which involves injury to an employee that prevents the person from following his normal occupation and involves permanent disability
- Class 3 - An incident which involves injury to an employee that prevents the person from following his normal occupation for 4 days or more
- Class 4 - An incident resulting in lost time of less than 4 days which requires medical treatment or clinic or hospital

Information on the types of injury and injury rate (for MRT Putrajaya Line) has been assured through Limited Assurance exercise with Ernst and Young.

\* Formula to calculate Injury Rate: Number of injury (class 1, 2, 3 and 4)/total manhours worked X 200,000

# Formula to Lost Day Rate: Number of workday lost/total manhours worked X 200,000

### GAMUDA BERHAD (Gamuda Engineering, Menara Gamuda and projects)

Total Man-Hours Worked	Average Man-Power	Injury Rate	Lost Time Injury Frequency Rate (LTIFR)
40,053,544	16,744	0.25	1.27

Projects include MRT Putrajaya Line, Pan Borneo (WPC-04) and Belfield



## DIVERSITY AND EQUAL OPPORTUNITY

### WHY IT MATTERS

(GRI 405-1) (GRI 103-1)

Gamuda recognises that to achieve its purpose, it must be a leader in relation to workplace diversity and equality.

We employ a diverse workforce so that we can tap into a wider talent pool with different background and expertise, thereby generating creative solutions that will help the Group stay competitive in the ever-challenging and globalised business environment.

We do not discriminate against gender, marital status, race, nationality, ethnicity, or age. Our guiding principles are to promote and protect basic human and, labour rights and values to achieve our collective goal for excellence.

### HOW WE APPROACH IT

(GRI 405-1) (GRI 103-2) (GRI 103-3)

The Group practices non-discrimination when it comes to performing organisational activities. Although the popular belief is that a construction company may tend to promote male employees, Gamuda does not discriminate in that manner. We provide equal opportunities for all to be part of our innovative team of builders. For more information on how we value talents without discriminating based on gender, kindly refer to the 'Women in Engineering' section on page 116.

Besides at the working level, we also ensure that women are part of our highest governance levels. Our Group key governance positions are led by females such as Group Human Resources and Administration, Group Corporate Communications and Sustainability, Group Chief Sustainability Officer, Legal and Company Secretarial, and the Integrity and Governance Unit. The drive to promote women in management extends to the Board level, with three out of seven of the members are female. We hope to continue having this mixture of leadership in the Group and be a precursor towards a company for all.

Other than promoting gender equality, we also do not condone any kind of discrimination especially for key processes such as employee hiring, employee benefits, appraisal, remuneration, promotion or legal action due to non-compliance. We strongly believe that any form of appreciation or retribution should be a consequence of individual workmanship or actions.



### OUR PERFORMANCE

(GRI 405-1)



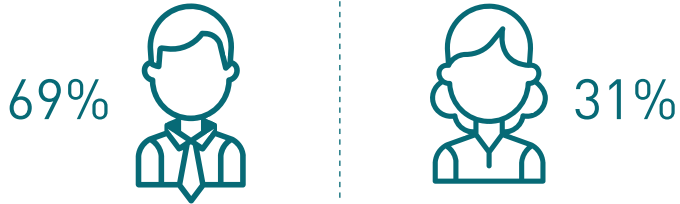
Gamuda's commitment to build a diverse and inclusive workplace is reflected in the composition of our workforce, which is well represented by each age group as well as gender. In FY2020, 33 percent of our employees are under 30 years old, with 56 percent of them aged between 30-50. We have 12 percent of employees who are over 50 years old. We believe it is important to have a workforce comprising a balanced number of experienced as well as up-and-coming young workers to ensure the succession and continuity of the business as the experience accumulated could be passed down through collaboration.


Besides age diversity, Gamuda is also supportive of raising women's participation in the labour market. The Group has taken the initiative to ease concerns of working women, especially young mothers looking for an affordable and reliable childcare centre that is near to their workplace. This value added benefit acts as one of the elements to attract and retain our women in the workplace. In FY2020, 31 percent of our employees are female.

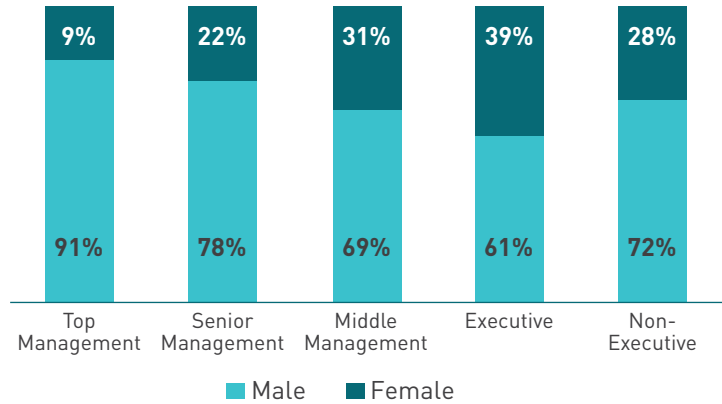


# Sustainability Report

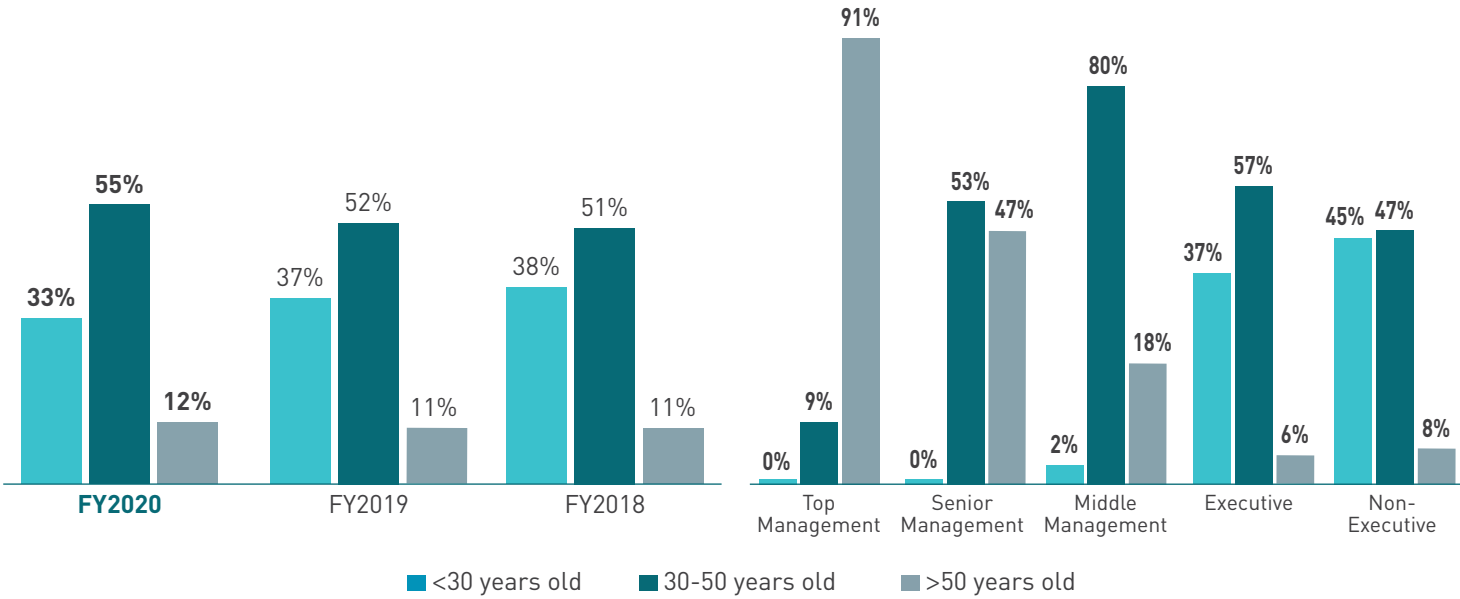
## The Group's Gender Diversity for FY2020



 Total number of employee for FY2020: 4,284  
 \* Excluding Joint Venture, Subsidiaries and Associates



## The Group's Age Diversity for FY2020





## NEW EMPLOYEE HIRES AND EMPLOYEE TURNOVER

### WHY IT MATTERS

[GRI 401-1] [GRI 103-1]



Gamuda views our people as the greatest asset of the Group. As an infrastructure company, our success is heavily dependent on engineering excellence and expertise to drive technological advancement. This core competency is deeply rooted in the knowledge and dedication brought by our employees, as humans are behind each technology advancement and breakthrough.

This is evidenced by our latest award-winning (Autonomous Tunnel Boring Machine, A-TBM), a true Malaysian innovation designed by an in-house team of engineers at MMC Gamuda that is undertaking the Klang Valley Mass Rapid Transit construction project. Therefore, efficient manpower planning is important for Gamuda to maintain an optimal level of talents to sustain the business. At the same time, we seek to keep employee turnover to a minimum by providing a positive employee experience overall through continuous engagement and retention strategies.

Our hiring activity will typically increase when the Group embarks on a new project. This is balanced against a healthy turnover as this will enable the replenishment and growth of new talents with new skill sets.

The management of our human capital is a material sustainability matter as our people are the primary stakeholder that drives the business, bringing innovation to our projects. All of these will have an indirect impact on the construction and engineering industry in Malaysia due to Gamuda's position as an industry leader. An event that may alter the Group's hiring and retention rate would be an industry slowdown or a lack of new business for the Group to sustain its workforce expansion.

### HOW WE APPROACH IT

[GRI 401-1] [GRI 103-2] [GRI 103-3]



Whenever a new hire joins the Group, they will be introduced to the Group's structure and work culture through a formal orientation programme that promotes an informed on-boarding experience. These new hires will undergo a supervised and structured on-boarding programme within their departments during their probationary period. The Recruitment and Selection Policy is in place for everyone to view and follow when hiring is concerned.

We also share Gamuda Values with new employees and equip them with awareness on discipline, sexual harassment and grievance guidelines and policies during the Corporate Induction Programme for all new employees.

A Cessation of Service policy is in place to help manage employee resignation. We will conduct a formal exit interview to obtain feedbacks on reasons for resignation, which allows us to ensure actions are taken to improve and close any necessary gaps that may exist.

The new hires and employee turnover are managed by our talent managers from the Group Human Resources. They assist the business to manage and advise on the required resources. Heads of departments are given the responsibilities to manage the resource planning.

The Group has dedicated resources in place through the various HR teams to manage the full cycle of employment experience at Gamuda, from hiring right through managing the employee's exit. This includes the teams responsible for Talent Acquisitions, HR Operations, Compensation and Benefits, as well as Talent Management. On the technology front, we have invested in computer systems and have the relevant HR processes in place for the management of our employments.

We continuously strategise our annual plans to build our talent pipeline through Employer Branding initiatives. We constantly engage with university students both locally and abroad through workshops and talks, career fairs, internship programme intakes and employer branding by participating in various publications and activities. In addition, we have built a strong social media presence on several platforms with assistance from the Group Corporate Communications and Sustainability department.

Our ongoing branding efforts have resulted in Gamuda being recognised in the latest Graduan Brand Awards as the sector leader in the Construction and Property Development industry. We have maintained our top five positions in the awards for the past three years.

To monitor our approach in employment management, we conduct internal audits to ensure check and balance in the process and feedback are collected on areas that needed improvement. The respective business unit's HR representatives will oversee the evaluation and the findings are discussed with the Head of HR.

# Sustainability Report

## OUR PERFORMANCE

(GRI 401-1)

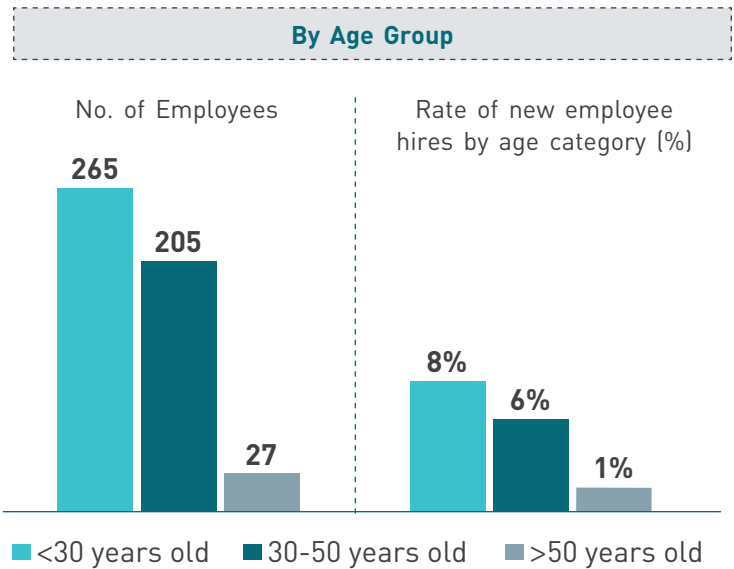
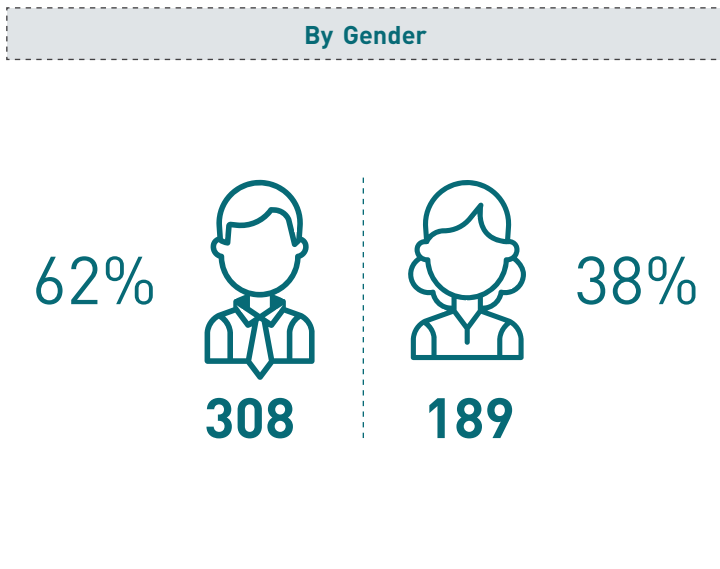


We hired 497 new employees in FY2020, representing 14 percent of our total workforce. The turnover rate stood at 9.2 percent, slightly lower than the 10 percent recorded in the previous year. Our employee turnover rates have been relatively stable over the past three years, with a turnover rate of 9 percent in FY2019.

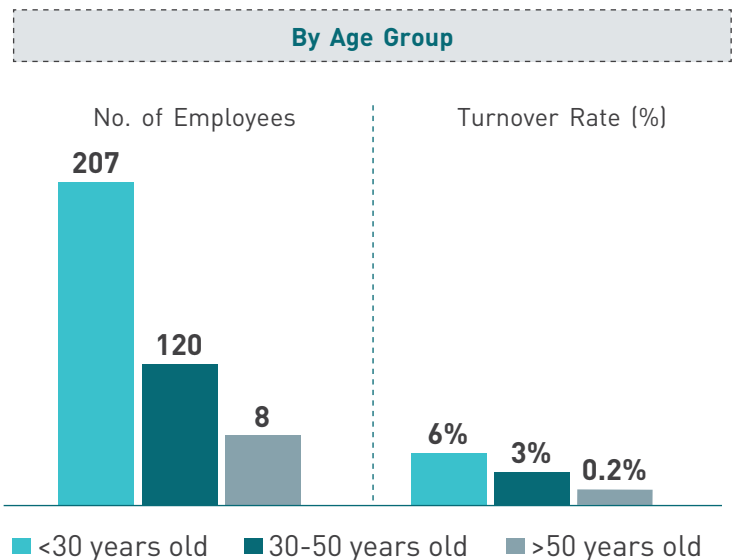
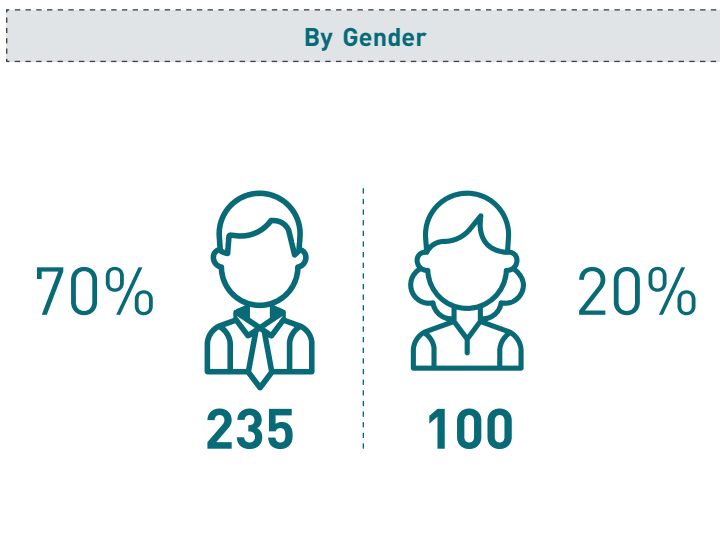
Our employment data consist of those from Gamuda Berhad, Gamuda Engineering, Gamuda Land, Clubs and other subsidiary companies of the Group in Malaysia, Australia, Singapore and Taiwan. The data excludes those from our joint venture and associate companies.

Gamuda's commitment to diversity and inclusivity is demonstrated in the well-balanced number of experienced employees compared with younger employees being hired during the year. Of the total new hires in FY2020, 33 percent are under 30 years old, while 55 percent are 30-50 years old. The remaining 12 percent are over 50 years old.

### New hires



### Turnover





## BENEFITS PROVIDED TO FULL-TIME EMPLOYEES

### WHY IT MATTERS

(GRI 401-2) (GRI 103-1)

We are committed to provide competitive benefits that promotes health and well-being while appreciating the workforce as part of our ecosystem. These benefits can improve our bottom line by engaging employees to care for themselves. Healthier employees mean lowering the risk for sick days, bringing employees best selves to work every day and be available for their lifestyle needs. As a company that promotes family values, we extend our employee benefits to the family members especially on key aspects such as health and flexible working arrangement. By providing these benefits, we hope to journey longer with the employees and retain our valuable talents within the Group.



### HOW WE APPROACH IT

(GRI 401-2) (GRI 103-2)



We continuously review and refine the employee benefits to suit the current needs of employees. We conduct frequent employee engagements through different mediums such as town hall meetings and appraisal sessions. The Group ensures that all employees understand their benefits through roadshows and ongoing communication. Rewards and compensations are offered on a merit basis, according to the employee's performance. Rewards and benefits matters are overseen by the Group Rewards Team and respective HR representatives.

### OUR PERFORMANCE

(GRI 401-2)



We offer comprehensive packages of benefits to our full-time employees to care for their overall well-being, such as healthcare, insurance, leaves, as well as retirement benefits. The table below lists some of the key benefits offered:

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
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, Surgical and Hospitalisation 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

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

# Sustainability Report



## LOCAL COMMUNITIES

### WHY IT MATTERS

(GRI 413-1) (GRI 103-1)



As a socially responsible corporate citizen, Gamuda supports local communities. We aim to create social value to the local communities by fostering collaboration or partnership across sectors with government, media and community members. We believe this will lead to a more equitable and inclusive solution in delivering a positive impact to society.

Communities where we operate are critical to our long-term success while our operations can affect these local stakeholders. It is our aim to sustain, support and develop the local communities through education, development programmes, environmental conservation and sustainability advocacy.

### HOW WE APPROACH IT, OUR PERFORMANCE

(GRI 413-1) (GRI 103-2) (GRI 103-3)



We actively engage the indigenous children, families and communities to tap their expertise and knowledge with the natural habitat of flora and fauna in our biodiversity conservation works, while offering them education and employment opportunity in return to effectively reduce the disadvantage faced by the aboriginal people in Malaysia.

Our approach to engaging and supporting indigenous people is articulated in several programmes, which seek to ensure our relationship contribute to their economic empowerment, social development needs, and cultural well-being.

**Orang Asli (indigenous) Temuan Villages** – we encourage the enhancement of the craft and skills, and preservation of traditional knowledge for medical and plant gardening with the five *Orang Asli* Temuan Villages that are located within the vicinity of our developments – Gamuda Cove and Paya Indah Discovery Wetlands.

**Wild Tree Seed Bank** – a project jointly conducted with native communities towards the propagation of tree species at Gamuda developments. Wild tree seeds are collected in an ex-situ conservation nursery site at Pulau Kempas, Dengkil. Using the traditional knowledge and experiences from the native communities, tree species are identified for conservation, with saplings then planted at our developments and arboretum to support Gamuda Parks' policy of planting more than 50 percent of native trees at our project sites.

**Kuala Langat North Forest Reserve** – As an adjacent landowner, we have committed towards the funding and resources to the rehabilitation of the Kuala Langat North Forest Reserve that covers about 2,372 acres of peat swamp forest. This is aimed at arresting the further degradation of the site to preserve the biodiversity of this natural resource that is of significance to rare animal species such as the Malayan Sun Bear and Leopard, as well as the *Orang Asli* communities.

The Peatland Water Management and Forest Rehabilitation work is implemented in partnership with NGO Global Environment Centre, the Selangor State Forestry Department and the *Orang Asli* Development Department. The objectives of this programme are to establish a local community group to help in 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.

**Junior Peatland Forest Ranger and Peatland Forest Ranger Programmes** – Together with BOH Plantation, we have invested in the Junior Peatland Forest Ranger and Peatland Forest Ranger Programmes, aimed at educating students on peat swamp forest. A total of 126 students and 25 teachers from various schools in Kuala Langat, Hulu Selangor and Kuala Selangor districts benefitted from these programmes.

**International Day for Biological Diversity 2020** – Gamuda Parks collaborated with Think City for the first time in its digital campaign due to the ongoing COVID-19 pandemic. The campaign saw a total of 1048 participants.

**Face masks production to support indigenous and underprivileged communities** – We collaborated with The Asli Co in making and distributing 500 reusable cotton face masks to the *Orang Asli* and homeless communities.

LOCAL COMMUNITY ENGAGEMENT



**PRESERVING TRADITIONAL KNOWLEDGE**

**FOR MEDICINAL PLANT GARDENING**

A knowledge transfer workshop for medicinal plant gardening, benefitting community in terms of food security



**UPSKILL TRAINING OF TEMUAN WOMEN**

Training provided to women from the Temuan *Orang Asli* community to sew and sell reusable face masks

**500 pieces**

of reusable face masks to native communities and homeless



**WILD TREE SEED BANK CONSERVATION OF TREE SPECIES**

Propagation of tree species with conservation value

**2000**

*Melicope lunu-akenda* preserved and procured for Gamuda Cove

**NATIONAL POLICY ON BIOLOGICAL DIVERSITY GOAL 5**

“We have improved the capacity, knowledge and skills of all stakeholders to conserve biodiversity”

**NATIONAL POLICY ON BIOLOGICAL DIVERSITY GOAL 3**

“We have safeguarded all our key ecosystems, species and genetic diversity”



Engagement with native community



Procuring of *Melicope Lunu Akenda* in nursery



Making of reusable mask

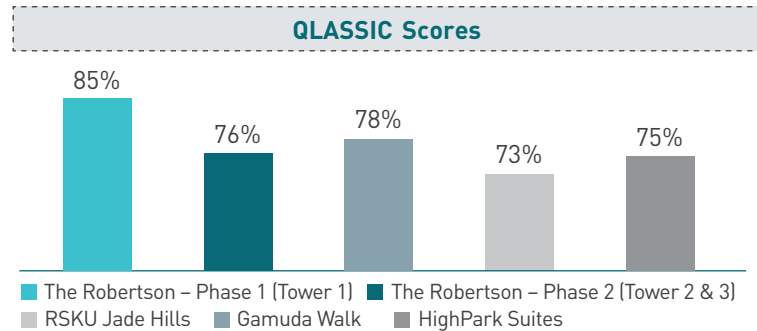


# Sustainability Report

## INITIATIVE

### QLASSIC

Quality Assessment System in Construction (QLASSIC) is a voluntary third party assessment with CIDB to evaluate the workmanship of a building construction based on the Construction Industry Standard (CIS7:2014). QLASSIC enables the quality of workmanship between construction projects to be objectively compared through a scoring system. In FY2020, our Gamuda Land HighPark Suites received the QLASSIC certification with a score of 75 percent.



### STAR GOLDEN HEARTS AWARD (SGHA)

Since 2016, we have contributed more than RM4 million to the annual Star Golden Hearts Award and Gamuda Inspiration Award a joint initiative by The Star, Star Foundation, and Yayasan Gamuda to celebrate the work of unsung heroes who go the distance in helping those in need irrespective of race, culture and religion. This is reflective of the values we hold dear as an organisation to galvanise and recognise an entire ecosystem of humanitarian and inclusive initiatives.

Every year, the number of nominations received increases double fold. In 2020, more than 500 nominations were received. This is a reflection of the growing humanitarian ecosystem in Malaysia over the years when we received 100 nominations when SGHA first started in 2016.

The nominations cut across all categories ranging from individuals, NGOs, social enterprises and companies. The range of benevolent, public-spirited and altruistic causes include education, environment and social purposes. The charitable initiatives involve employment, entrepreneurship, youth empowerment, digital literacy, waste management, nature conservation, urban agriculture, ecotourism, community welfare for the homeless and urban poor, disabled with special needs, water and sanitation in rural and indigenous communities, and animal welfare.

Each year, 10 outstanding individuals or groups are chosen as award winners and among them a Gamuda Inspiration Award winner will be selected to receive a grant of RM50,000 in contribution towards their cause. This resonates with our goal in empowering community-building efforts that leave a positive impact on the lives of others through socio-economic development.

## GAMUDA INSPIRATION AWARD



**2019**  
**Sujana Mohd Rejab**  
 Makes 3D-printed prosthetic limbs for disabled children; enabling them to have equal access to a quality life with dignity.



**2017**  
**Barefoot Mercy**  
 Provides electricity and education support to improve quality of life in rural Sarawak.



**2018**  
**UmieAktif**  
 Empowers underprivileged mothers in Chow Kit through sewing and crafting skills.



**2016**  
**Kedai Jalanan**  
 Set up 'Kedai Jalanan', a pop-up store to clothe the homeless with dignity.

INITIATIVE

INTERNATIONAL WOMEN'S DAY

On 6 March 2020, we organised an event for our employees at Menara Gamuda to mark the International Women's Day, a global day in celebration of the social, economic, cultural and political achievements of women.

At Gamuda, we strongly believe in the power of harnessing the potential of women and we are dedicated in providing all the support we can to help keep women in the workforce while they strive to raise a family at the same time. Gamuda is committed to invest in our employee to go on contributing, move up the corporate ladder and be eligible for decision-making roles in the boardroom – and we want them to do so deservingly, on their own merits.



At present, 33 percent of the board is made up of women, who constitute the board. While we are supportive of equal opportunity for women's participation in the labour force through family-friendly employment policy and facilities, continual participation remains the most critical workplace issue. Currently 31 percent of the workforce in Gamuda comprises of women, compared to 29 percent in 2019.

The highlight of the event during the International Women's Day this year was the "Stay On, Everyone Wins" forum that we hosted, aimed at building awareness on empowering women at workplace and its significance. Featuring Malaysia's longest-serving Minister of International Trade and Industry Tan Sri Rafidah Aziz, the forum discussed how, in more recent decades, gender gaps at work were found to have been based on women's own decisions that were influenced by social norms rather than a result of overt discrimination.

**43%**  
Women on Board

**31%**  
Women in the workforce

**Family friendly**  
employment policy and facilities

GAMETIZE

As the Group continues to further drive digitalisation, Gamuda's Talent Management is leveraging on technology to facilitate knowledge and skill development among our employee by utilising a mobile learning gamification application called Gametize.

Classroom training is no longer the only way to learn and acquire skills, and gamification is the latest and more interesting way to learn. Gamification is well-suited for today's learners who have grown up with technologies and want strong engagement while learning, as the game-based mechanics and aesthetics motivate action and problem solving.



Gametize is a flexible learning platform that can be customised for any training topic, which is especially useful during the year when social distancing have affected physical training plans. Gametize uses online quizzes, diagrams and flashcards to entice learners to complete challenges toward defined learning objectives.

The Gametize way of e-learning in bite-sized modules that takes only 10-15 minutes to complete has proven to be popular not only among the younger audience, but also among the tech-savvy seniors in Gamuda.

# Sustainability Report

## INITIATIVE

### WOMEN IN ENGINEERING

While engineering is a male-dominated profession, Gamuda is dedicated to shake up the perception and diversify its workforce with a more gender-balanced talent pool. We constantly offer opportunity and encourage women to take up roles that are traditionally occupied by men, and we are proud to know many women who took up the challenge persevered and excelled in the tasks assigned to them. From a specialty instructor who conducts fire safety training for all site workers working underground at the MRT Kajang Line, to a site engineer who was promoted to become the Section Head of KLCC East underground station, we have groomed many female workers who excelled in the engineering roles along with their male counterparts.

To further increase female participation in our workforce, we have started the Gamuda Women Empowerment Network (GWEN), aimed at providing women a support network to help advance their careers. Through GWEN, we hope to encourage more women participation especially at managerial and senior levels. We want to educate our workforce in removing cultural impediments about women in leadership positions as well as discuss the types of policy measures needed to promote more diversity and inclusion in the workplace.

We also seek to retain more female employees in the workforce through a host of benefits under the Women@Work initiative, offering options to women to raise their family amid career development such as extended maternity leave and Flexi Work Arrangement to accommodate to the needs of working mothers.



Increase  
**female**  
participation in  
our workforce

Encourage more  
**women**  
participation

## PANDEMIC PREPAREDNESS

### COVID-19

Gamuda adhered to all regulations and guidelines issued by the Malaysia Government in response to the COVID-19 outbreak to safeguard our employees and communities from the disease.

Malaysia entered a period of Movement Control Order (MCO) from March 18 to May 4, when almost all businesses and economic activities were halted and people were ordered to stay at home under the Government's directive. This followed by Conditional Movement Control Order (CMCO) from May 4 to June 9 with more relaxed regulations following a decline in COVID-19 cases in the country. Most economic sectors and activities were allowed to operate during this time with strict adherence to business standard operation procedures (SOPs) such as social distancing and keeping patrons' contact details for tracing purposes. Movement restrictions in Malaysia were further relaxed under the Recovery Movement Control Order (RMC0) phase between June 10 and December 31.

A special committee was set up to handle the pandemic, which consists of the COVID-19 Steering Committee headed by the Managing Director of Gamuda Engineering Sdn Bhd, the COVID-19 Working Committee, Business Unit and Project Task Force. The COVID-19 response plan is chaired by the Group Managing Director through a Steering Committee for business resumption, led by the Managing Director of Gamuda Engineering and the CEO of Gamuda Land. The Working Committee consist of



personnel from the Group Human Resources and Admin, Group Corporate Communications and Sustainability, and the Quality, Safety, Health and Environment (QSHE) departments, while the Board aided the management as appropriate. We had also revised the Emergency Response Plan and included COVID-19 as a potential emergency.

Gamuda responded to the Government's directives with several key measures, mainly related to the establishment of a process related to testing and contact tracing to ensure that early detection of COVID-19 can be done to prevent further spread of the virus. Centralised Quarantine Quarters (CQQ) were set up to serve as facilities to quarantine Patients Under Investigation (PUIs) while they wait for confirmation on the COVID-19 status. We had also introduced testing approaches such as RT-PCR and Antibody RTK tests, and redesigned the Centralised Labour Quarters (CLQ).

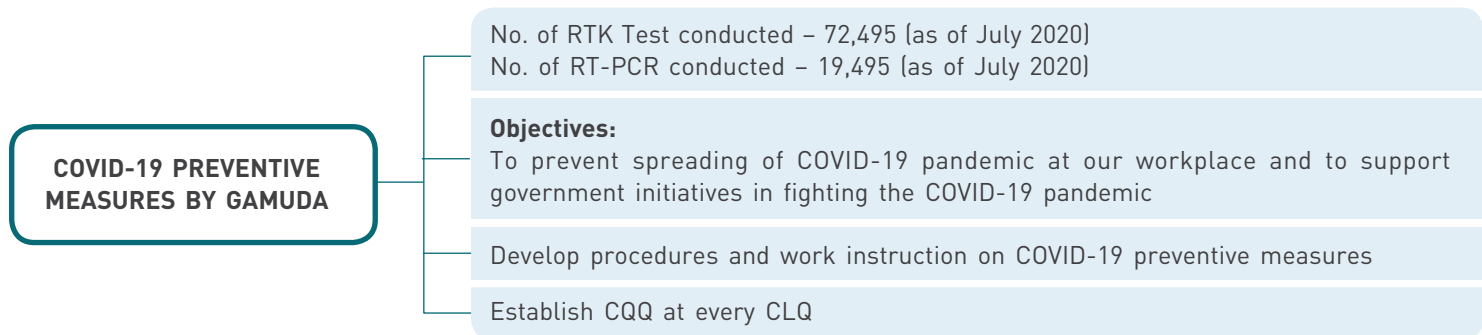
**PANDEMIC PREPAREDNESS**

We have set up our RT-PCR testing facility to enhance our COVID-19 control measures to bolster infection prevention while mitigating the risk of the spread of the virus within our workforce. This in turn will support our business continuity plan. Our internal testing process is not intended to replace the Ministry of Health’s RT-PCR test, but rather to support the Group’s operations by preventing downtime and cost through the rapid establishment of any potential infection cases promptly. In the event of an internal test turned out to be COVID-19 positive, we would follow the usual practice of sending the case to a MOH Accredited Laboratory for due process. In such an event, we will be better prepared for the eventual outcome and this will enable us to take speedy action to prevent spread through isolation

Other preventive measures put in place include having our employees working from home at the beginning of movement restriction period, while facilitating social distancing at our

premises. We are in 100 percent compliance with the Government guidelines at both Menara Gamuda and our project sites. Gamuda’s commitment in adhering to the SOPs has helped our project sites obtain the approval from the Ministry of International Trade and Industry (MITI). Special approval was granted to continue works at selected MRT Underground sites during the MCO with stringent adherence to precautionary safety measures and a limited workforce, as tunnelling works could not be temporarily halted due to public safety risk.

We are cognisant of the need to take care of the mental well-being of our employees due to the prolonged MCO period. Action was taken to organise sharing sessions online for all employees on a frequent basis to help ease the effect of isolation. Throughout this period, we have boosted internal communications through Workplace and other platforms to keep our employees updated about the pandemic.



**UPSKILLING AND RESKILLING MALAYSIANS**

**ENABLING ACADEMY**

Over the years, Gamuda has benefitted from the dedication and hard work of many talented Malaysians who chose to build their career with us. This contributed to the Group’s success and market-leading position we enjoy today. Gamuda is determined to contribute back in building the community that built us, by making our growth more sustainable and our success more inclusive.

This vision has led us to launch the Project Differently-Abled in 2013, which resulted in the Group’s hiring of 20 employees with autism. The project was also a precursor to the establishment of the Enabling Academy (EA) in 2017, aimed at preparing more people with autism for gainful and sustainable employment.

The Enabling Academy seeks to achieve this mission through an Employment Transition Programme (ETP) that trains and places young adults on the autism spectrum into companies that embrace diversity and inclusion in their workforce. The three-month programme sponsored by Yayasan Gamuda comprises two courses designed to equip trainees with the relevant soft skills and practical job training that are essential for employability.

We are aware of the tremendously positive impact this programme could bring to the society and we aim to share our experience more widely. To facilitate the replication of more ETPs nationwide, EA has developed and published a Trainer’s Manual, the first in Malaysia that is used by the EA team to conduct Course I (Personal Development for Career Sustainability) and Course II (Job Skills Development).

These courses are useful to help equip job seekers on the autism spectrum, in particular those with high-functioning autism, for sustainable employment. Nevertheless, the concept and contents of EA ETP can be adapted to suit the needs of youths in general to prepare them as they transition to life after school and employment. As such, the Trainer’s Manual works as a guide and resource book for special education teachers, vocational trainers and job coaches for persons with disabilities and other youths in general.

The EA team is planning a nationwide outreach to share the EA ETP manual to the relevant educators, practitioners and job coaches to enhance their existing programme to better equip these youths to achieve sustainable employment and independent living.

# Sustainability Report

## UPSKILLING AND RESKILLING MALAYSIANS



Gamuda believes that employment is particularly challenging for people with autism because societal institutions like workplaces, organisations and tertiary institutions are often not ready or lack the willingness and ability to engage with persons with disabilities as full employees and citizens of society. We want to help raise the awareness that society are in it together to tackle this challenge and we need to embrace persons with disabilities in ways that acknowledge their potential.

According to Professor Dan Goodley, Co-Director for iHuman at the University of Sheffield in the U.K., many people in the world adopted a deficit perspective about persons with disabilities which views them as lacking, lowered in capacity and unable to act as full members of society. This view is wrong as it does not recognise the potential of persons with disabilities and those with autism to work just like other colleagues when offered specific kinds of support in their activities as employees.

However, we all need help at work and none of us can do our jobs in isolation. With that view in mind, EA had designed a series of activities that seek to put in place the support needed by employees with autism, focusing on capacity building. This approach assumes competence on the part of individuals with autism and persons with disabilities in general.

We hope that through supporting people with autism into work, we are also respecting and promoting a diverse workforce that is positive and in turn contribute towards building a more inclusive and sustainable organisation. Our efforts with EA and the Trainer’s Manual is aligned with UN Sustainable Development Goal 4 (Quality Education), 8 (Decent Work and Economic Growth), and 10 (Reduced Inequalities).

### Our Impact

Public Awareness Outreach on the Employability of persons with autism by Enabling Academy

- 150** Companies
- 1,963** Local Communities
- 2,235** Gamuda Employees

All data are since 2017

Current Partner Companies	No. of EA Graduates Employed
DRB-HICOM Bhd	
CIMB Bank Berhad	
Agrifert Malaysia Sdn Bhd	
Macro Dimension Concrete Sdn Bhd	
Feruni Ceramiche Sdn Bhd	
Brick Dotcom Sdn Bhd	
Hap Seng Land Sdn Bhd	
SalesCandy International Sdn Bhd	
SalleWan Property Management Sdn Bhd	27
Maran Road Sawmill Sdn Bhd	
UNIQLO Malaysia Sdn Bhd	
HSBC Electronic Data Processing (Malaysia) Sdn Bhd	
OCBC Bank (Malaysia) Berhad	
Nehemiah Reinforced Soil Sdn Bhd	
Roche (Malaysia) Sdn Bhd	
United Overseas Bank (Malaysia) Bhd	
<b>Gamuda Group</b>	
Gamuda Berhad	
Gamuda Engineering Sdn Bhd	
MMC Gamuda KVMRT (T) Sdn Bhd	6
Gamuda Trading Sdn Bhd	
<b>Self-Employed</b>	
Caryn Personal Care Sdn Bhd (Family business)	
Snack Stall at Damansara Jaya Food Court	3
Vegetable Supplier (Provide dispatch service)	
<b>Total</b>	<b>36</b>

### Awareness Sessions for Companies from 2017 – July 2020

No. of	FY2020	FY2019	FY2018	FY2017	Total
Sessions	5	33	31	28	97
Participants	102	639	367	238	1,346
Companies	4	60	58	28	150

## UPSKILLING AND RESKILLING MALAYSIANS

### TUNNELLING TRAINING ACADEMY

Gamuda has accumulated years of deep experience and highly specialised knowledge in tunnelling works through the various underground construction jobs in the Klang Valley and abroad. Our tunnel building track record includes the world's first dual-purpose Storm Water Management and Road Tunnel (SMART), the Western Kuala Lumpur Traffic Dispersal Scheme (SPRINT), the Electrified Double Track Project (Ipoh – Padang Besar), Kaohsiung Metropolitan MRT in Taiwan, the Klang Valley Mass Rapid Transit (KVMRT) Kajang Line, as well as the Putrajaya Line which is under construction.

Social sustainability is an important aspect of these mega infrastructure projects we embarked on in Malaysia, and we believe these specialised skillsets must be passed on to empower and enrich a new generation of youths, so as to help develop the local workforce in support of the country's aspiration to move up the value chain.

With this in mind, the Tunnelling Training Academy (TTA) was set up by the joint venture between Gamuda and MMC Corp in 2011 during the construction of the MRT Kajang Line to address the shortage of a competent workforce for tunnelling works. Aimed at producing highly skilled workforce in the local tunnelling works, RM10 million was invested to set up the academy in Shah Alam, Selangor to meet the need for the construction of the KVMRT project. An additional RM2 million a year is spent on the operations of the TTA.

The establishment of TTA, the world's first learning institution specialised in Tunnel Boring Machine (TBM) technology, helps reduce Malaysia's dependence on foreign labour for construction projects, fulfilling the country's requirements for skilled labour for upcoming infrastructure projects. This specialised and niche training also elevates the standard of the national technical and vocational training and education (TVET) initiative, making it on par with other specialisation globally.

TTA works closely with the Education Ministry, Human Resources Ministry, the Youth and Sports Ministry and leading TVET institutions in the country such as Institut Latihan Perindustrian (ILP) and Akademi Binaan Malaysia (ABM) to select the graduates to join our training.

About 1,000 trainees have been trained at TTA and worked in MRT Kajang Line, of which 30 percent of the workforce are from Sabah and Sarawak. Training at TTA focuses on the operation and maintenance of the Variable Density TBM (VD TBM) that was jointly developed by Gamuda and the TBM supplier, Herrenknecht from Germany, to meet the complex geological conditions in the Klang Valley.

TTA students first undergo theory and simulator training at the academy in Kota Kemuning, Shah Alam, and they will subsequently be posted to KVMRT job sites including Cochrane, Bandar Malaysia, Titiwangsa, and Chan Sow Lin. Some are also posted to Malaysia's first TBM Refurbishment Plant located in Pusing, Ipoh.

The training modules, which take up to 16 weeks for specialist training, cover TBM operation, tunnel electrical application, ring building, cutting disc changing, to bi-component grouting and will equip graduates for roles ranging from assistant TBM operator, erector operator, tunnel mechanic and electrician, to tunnel crew.

A significant number of TTA graduates were later promoted to become electricians, mechanics, operators and supervisors, in line with Gamuda's objective to upskill Malaysians and providing them with career growth opportunities.

Beyond Malaysia, tunnel-related expertise is a field that has a huge demand globally. TTA constantly collaborates with leading international players such as Siemens and Bosch to ensure only the best solutions are deployed to deliver our tunnelling jobs. For instance, TTA collaborated with Siemens to localise a course on Programmable Logic Controller (PLC) module for tunnel electricians. This is an important course as mastering the PLC is akin to controlling the brains of the TBM and tunnel electricians will be better equipped to understand all the mechanisms that control the VD TBM. TTA also invested in Bosch training facilities through the VD TBM's electro-hydraulic system to train tunnel mechanics on the mechanical and hydraulic components of the TBM.

To replicate the success of TTA while supporting Gamuda's expansion into the Australian infrastructure market, plans are underway to set up a TTA in Sydney to provide transferrable skills to the workforce for the benefits of the industry.

# Sustainability Report

## TUNNELLING INNOVATION ROADMAP

A proven track record of continuous innovation in construction, particularly within our niche of tunnelling with a highly skilled talent pool armed with digital skills and diverse supply chain.

### SMART TUNNEL

Listed by Cable News Network, CNN as one of the world's Top 10 greatest tunnels, SMART is the world's first traffic and stormwater management tunnel built with the largest TBM in South East Asia at the time.



### PRECAST SFRC TECHNOLOGY

Pioneers of Steel Fibre Reinforced Concrete (SFRC) technology in the region for precast tunnel segment production offering increased productivity and improved durability benefits. Upskilled four local precast SMEs.



### LOCAL TBM REFURBISHMENT

Partnered local engineering SMEs to set-up a facility to refurbish eight Kajang Line TBMs for the upcoming Putrajaya Line utilising over 70 percent locally manufactured parts, offering cost savings to the Government and upskilling our local workforce in the process.



## 2002

### TUNNELLING TRAINING ACADEMY

The world's first tunnelling academy set-up to produce a highly skilled local workforce which has provided Technical and Vocational Education, and Training (TVET) to 1,000 Malaysian tunnellers reducing our reliance on foreign expertise.



## 2013

### VARIABLE DENSITY (VD) TBM

The VD TBM is a multimode TBM designed specifically to address the unique challenge of tunnelling in KL's notoriously difficult karstic limestone geology. It is a culmination of our lessons learnt from the SMART project in 2004 and was the key contributor to safe tunnelling on the MRT Kajang Line



## 2016

**TECHNICAL INNOVATION OF THE YEAR AWARD 2014**  
International Tunnelling & Underground Space Association  
London, UK

 **2,400+**  
Upskilled

 **>RM40 million**  
Direct R&D Investment

 **3** International  
Innovation Awards

**DIGITAL CONSTRUCTION**

Digitalisation of processes for a paperless workflow with construction data and information housed on a Common Data Environment (CDE) as a single source of truth accessible on mobile devices in real-time.



**2018**

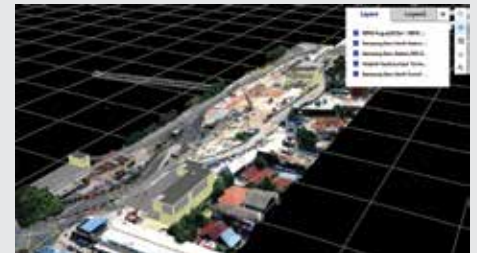
**TUNNEL COMMAND CENTRE**

Integrated tunnel construction and crisis management centre utilising cloud technology for 360° awareness and real-time connectivity to all TBMs operating on the Putrajaya Line.



**WEB 3D GLOBAL INFORMATION SYSTEM (GIS) PORTAL**

Integration of drone and BIM assets onto a common web platform. Digitising the construction landscape on the cloud was a first for the region.



**DRONE SURVEYING**

Winner of Bentley Year in Infrastructure 2019 Reality Modelling Award for novel use of drone surveying for BIM and GIS capture.



**SPEARHEADING BIM IN THE REGION**

First main contractor in Malaysia to be BIM Level 2 certified by a leading training and certification body, the British Research Establishment (BRE). Established BIM Academy to train more than 1,000 professionals in BIM utilisation.



**2019**

**AUTONOMOUS TBM (A-TBM)**

Our A-TBM was developed 100 percent in-house by our local engineers and utilises Artificial Intelligence (AI) Control Algorithms to autonomously operate the TBMs on the Putrajaya Line with proven tangible improvements in productivity, safety and quality for tunnel construction.



**TECHNICAL EQUIPMENT INNOVATION OF THE YEAR AWARD 2019**  
International Tunnelling & Underground Space Association Miami, USA

**INNOVATION IN TUNNEL EXCAVATION OF THE YEAR AWARD 2019**  
New Civil Engineer London, UK



# Sustainability Report

## LOCAL IN-HOUSE DEVELOPMENT UTILISING KEY INDUSTRY 4.0 ENABLING TECHNOLOGIES

Creating a platform for driving continuous growth, increasing productivity, raising innovation capabilities and creating higher skilled digital employment.



**Upskilling and reskilling** existing and future labour pool need to be at the heart of Malaysia's transformation



**Inclusive involvement of SMEs** is critical to power a holistic step up in labour productivity across the economy





**Significant evolution in innovation** capabilities and collaboration platforms is essential to foster the development of and access to cost-effective technologies that address specific sector needs



**Good digital infrastructure** is required to enable reliable and secure Industry 4.0 operations


### AUTONOMOUS TBM (A-TBM)

 **Artificial Intelligence (AI)**

 **Systems Integration**

### TUNNEL INSIGHT

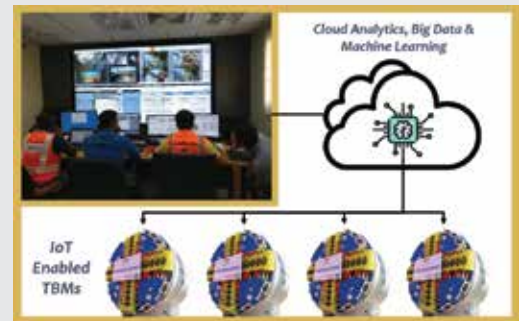
 **Big Data Analytics**

 **Cloud Computing**

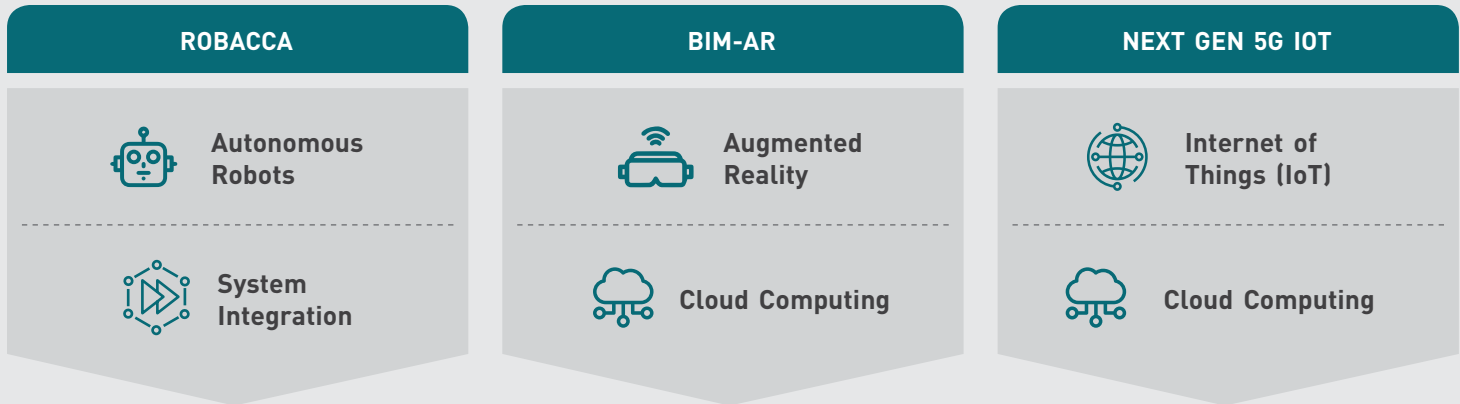
## INDUSTRY 4.0 ENABLING TECHNOLOGIES



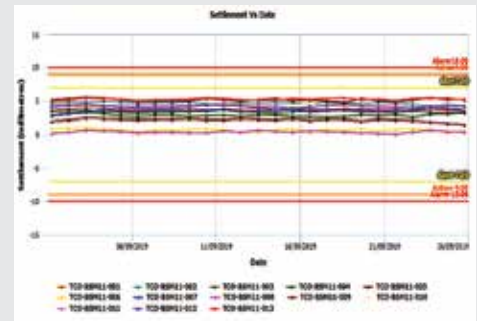
- Winner of two international innovation awards and acclaimed as a "significant milestone event in the history of underground construction for the world" by the International Tunnelling Association.
- Our A-TBM system garnered global attention, cementing our position as one of the leading innovative tunnelling contractors internationally.
- Developed 100 percent in-house by our local engineers and uses AI control algorithms to autonomously operate TBMs on the Putrajaya Line. Local tunnel operatives are upskilled as systems supervisors of the A-TBM system.



- A cloud-based big data system currently under development by our in-house innovation team. Utilises AI and machine learning to glean insights from TBM data for enhanced A-TBM performance, increased 360° awareness and improved risk management in tunnelling.
- Works as an extension of our A-TBM technology offering predictive and prescriptive analytics for actionable insights.
- Upskilling opportunities for our local software engineers to build big data lakes and pipelines with analytics in the Google Cloud Platform in tandem with AI and machine learning techniques.



INDUSTRY 4.0 ENABLING TECHNOLOGIES



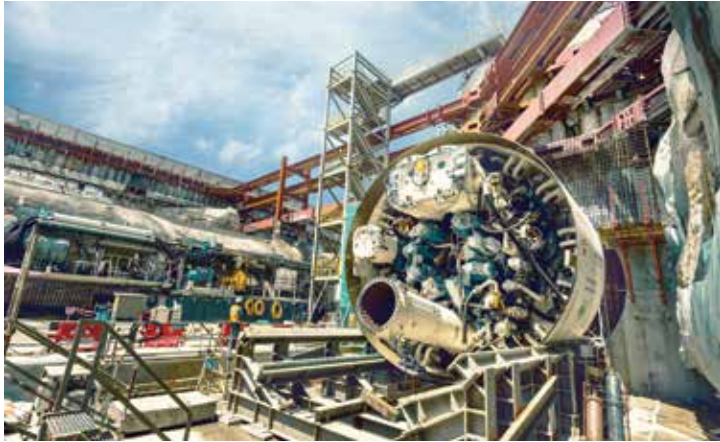
- Our ROBot Assisted Cutter Change Apparatus (ROBACCA) is a human assistive and autonomous robotic tool which reduces the exposure of humans to dirty and dangerous tunnelling environments. It represents the first step towards fully automated maintenance of TBMs.
- ROBACCA is currently in the final prototyping phase and will move into beta testing soon.
- Design, development and prototyping have been carried out by our own in-house engineers and programmers in partnership with local manufacturing and automation SMEs with 100 percent local fabrication and components.

- Winner of Malaysia Technology Excellence Award – Augmented Reality Category 2020.
- Developed by our in-house engineers extending and mating our Building Information Modelling (BIM) technology with Augmented Reality (AR). The generated 3D walkthroughs allow real-time detection of clashes and errors onsite thus minimising rework costs and enhancing collaboration.
- Upskilling of engineers and surveyors utilising this system as part of their construction workflow and further enhancing our lead in our BIM capabilities ahead of our competition.

- Leveraging modern 5G networks to deliver real-time monitoring of ground and building conditions, offering increased safety and reduced risk during critical tunnelling operations.
- The large quantity of sensors, the scale of our projects and the criticality of real-time information make this an ideal Internet of Things (IoT) use case. Complementary data streams will be fed into our A-TBM and Tunnel Insight systems.
- Upskilling opportunities for software engineers to develop IoT and cloud based data pipelines and cultivation of local supply chain for IoT devices.

# Sustainability Report

## PROMOTING INNOVATION



### TUNNEL BORING MACHINE

Gamuda strives to make lives better and the planet greener through technology and innovation, and we always seek to push the boundaries with design breakthroughs that would transform the industry. This is also aligned with the UN Sustainable Development Goal 9, which aims for industry innovation and infrastructure development to leave a positive impact on the society.

Our quest for excellence was yet again demonstrated through the technological advancement we made with key equipment used in our core business of constructing underground tunnels as part of the public transport infrastructure – the tunnel boring machine (TBM). A TBM is used to excavate tunnels with a circular cross-section through a variety of soil and rock strata.

A vision from a young Malaysian tunnel manager that began in 2015 during the construction of the MRT Kajang Line to increase efficiency in the tunnelling work and to reduce risks, such as human error or erratic machine operation when operating under the most sensitive conditions, has led to the design of a TBM that could be operated with human oversight rather than control.

An in-house working team was eventually formed in July 2018 and within four months, the algorithms for auto-steering were written, synchronised into TBM programmable logic controllers (PLCs), and validated on a machine mining underneath a 13-lane highway. Within a year, the system was expanded into three more major sub-systems of tunnelling. This Autonomous TBM (A-TBM) system has been deployed on our TBMs currently excavating 13.5km of twin running tunnels under the Kuala Lumpur city centre.

The Malaysian invention of the A-TBM, designed by MMC Gamuda KVMRT (T) Sdn Bhd, has landed us a number of prestigious international awards in late 2019. These include the Technical Product/Equipment Innovation of the Year award at the 2019 International Tunnelling and Underground Space Association (ITA) Tunnelling Awards in Miami, Florida. The innovation also received recognition at the Tunnelling Festival Awards in the UK sponsored by the British Tunnelling Society in the category of Innovation in Tunnel Excavation.

The A-TBM stood out as a new approach to tunnelling as the world's first automated system comprising custom artificial intelligence control algorithms enabling autonomous control of TBMs. The system analyses machine data in real-time and assumes control of steering, advance, excavation and slurry sub-systems with minimal human input. The overall result of this autonomous TBM is safer tunnelling, which means improved cost and programme efficiency. Our A-TBM has resulted in tangible benefits including faster response time and higher accuracy.

The idea of creating this autonomous TBM had stemmed from the difficult terrains in the Klang Valley encountered during the construction of the MRT Kajang Line. We had decided to deploy the variable density tunnel boring machines (VDTBMs), which was relatively new at the time. The VDTBMs are a mix between earth pressure balance and slurry machines where the density of slurry can be adjusted and are highly effective as they can maintain pressure ahead of the cutter head through a variety of terrains. We would continue to utilise the same technology for the construction of the Putrajaya Line.

Nevertheless, the concurrent construction of the Kajang Line and the beginning parts of the Putrajaya Line coupled with a shortage of skilled personnel to operate the VDTBMs had eventually prompted us to try automating the steering of TBM to reduce the reliance on human operators. We subsequently developed three sub-systems beyond auto-steering, auto-advance, auto-excavation and auto-slurry – which means our automation covers all main tasks of a TBM operator. We have progressively applied our A-TBM technology to our VDTBMs working on the Putrajaya Line with success.

In addition to lowering the risks to human lives by automating the TBM system, the higher efficiency of the A-TBM as compared to the conventional TBM also helps reduce the greenhouse gas emissions with less water and electricity consumption required in its operation. That in turn contributes toward the global fight against climate change and is in line with the UN SDG 12 (Responsible Consumption and Production) as well as 13 (Climate Action).

## PROMOTING INNOVATION

### DIGITAL CONSTRUCTION WITH BIM, DRONES & GEOGRAPHICAL INFO SYSTEM (GIS)

In this age of Fourth Industrial Revolution (Industry 4.0), the advent of big data, Internet of Things, and artificial intelligence and other enabling technologies have allowed for greater innovations and efficiency in the ways infrastructure and homes are built.

Gamuda has been at the forefront of embracing and spearheading technology to transform and innovate our products and services to stay ahead, and one of the more significant digitalisation we adopted in our construction processes is the Building Information Modelling (BIM) technology.

BIM is a computerised system that facilitates multi-stakeholder coordination while allowing for greater precision and speed in the design and implementation of construction plans. BIM integrates information and communicates real-time changes where all design data is captured online on a collaborative platform and all design clashes are resolved before construction. It creates a model which contains digital description for every aspect of the project, providing various benefits throughout the entire project lifecycle.

This leads to cost saving, increased productivity, and allows for better collaboration, communication, as well as risk mitigation.

At our Klang Valley Mass Rapid Transit construction sites, we use BIM tools such as Viewpoint for Projects and Fieldview for Common Data Environment (CDE) efforts. These BIM tools integrate into the Geospatial Information System (GIS) that allows unified data in terms of access to information. This data is presented on an interactive dashboard enabling decision making and construction progress updates to be more efficient. The entire digitalised process is aided by the use of other high-technology tools such as laser scanning, drones, and Virtual Reality.

The synergistic nature of the Group's core businesses means that we can leverage on the progress made in construction to make our home-building processes more efficient as well. The BIM technology is also adopted by our property arm, Gamuda Land, as part of its digitalisation plan to build smarter developments for a sustainable living environment.

BIM is now incorporated into every stage of the property development at Gamuda Land. Starting at the feasibility study stage, information on the existing nature of a site is captured and fed into the BIM platform, giving designers a greater understanding of the proposed site and making better decisions to develop it. By analysing this information, our designers will then optimise each design and development to achieve higher Green Building Index scores to fulfil the Group's commitment to make the urban environment more liveable and sustainable.



Subsequently, the BIM platform allows the conceptualised 3D designs to be further developed by combining architectural, structural, mechanical, electrical and plumbing elements — all within the cloud-based system allowing everyone working on the project access to real-time updates. The seamless integration from design to construction is completed with digital manufacturing under Gamuda IBS (Industrialised Building System), whereby the virtual designs are turned into reality with robotics production to make faster home-building at more affordable prices by making the process more efficient and error free.

As a Group, we are proud that the use of BIM, in combination with other Industry 4.0 technologies has propelled us on our efforts to contribute toward building a more sustainable future for both Gamuda and the future generations.

In November 2019, our project joint venture MMC Gamuda KVMRT (T) Sdn Bhd beat two other finalists from Madinah and China to clinch the first place in the Reality Modelling Category at the Year in Infrastructure Bentley Awards. The annual awards programme honours the extraordinary work of Bentley Systems, Incorporated, users worldwide for advancements in infrastructure design, construction and operations and it was Gamuda's second time winning an award from Bentley Systems.

MMC Gamuda presented our extensive use of multiple Bentley software, particularly that of Bentley Systems ContextCapture reality modelling software, to generate digital twins of our construction sites in the MRT Putrajaya Line project. Using drones to capture hyper-realistic visuals which are then overlaid on BIM designs, MMC Gamuda has effectively reinvested conventional surveying and regular site reporting with digitisation.

# Sustainability Report

## COMMUNITY INVESTMENT

### YAYASAN GAMUDA

Yayasan Gamuda was established in 2016 to oversee the Group's charitable efforts while ensuring all these initiatives are aligned with Gamuda's aspirations for community investments and development. The foundation arm that focuses primarily on educational aid and empowering social enterprises for community improvement has year after year contributed to various impactful causes, be it a Group initiative or an external movement.

These efforts invariably aligned with the United Nations' Sustainability Development Goals 4 (Quality Education) and 6 (Clean Water and Sanitation).

Gamuda strongly believes in contributing back to build the community that made us, and Yayasan Gamuda is our way to institutionalise the efforts to reinvest the profits earned in areas that will bring about significant social and economic difference in the places we do business.

Every year, Yayasan Gamuda conducted three recurring anchor projects under its Local Community Engagement initiatives, namely the Gamuda Scholarship, Enabling Academy, and the Star Golden Hearts Award.

Since 1996, Yayasan Gamuda has invested RM44.7 million and awarded 444 scholarships to outstanding Malaysian students to complete their tertiary education every year at the best universities in Malaysia, including at the local campus of foreign universities. We do this by awarding funds covering the course fees and welfare of scholars, as well as engagement and development activities throughout the funded period. In reflection of the Group's core businesses, scholarships are offered to those pursuing engineering, quantity surveying, development and urban planning, property and real estate management, and architecture.

Gamuda has set up the Enabling Academy in 2017, aimed at preparing more people with autism for gainful and sustainable employment. The Enabling Academy conducts an Employment Transition Programme that trains and places young adults with autism into partner companies that embrace diversity and inclusion in their workforce.

Yayasan Gamuda has been supporting the Star Golden Hearts Award since 2016. The event honours and celebrates the work of unsung Malaysian heroes who go the extra mile to help those in need irrespective of race, culture and religion, which are the values we hold dear as an organisation. The award serves as an encouragement for increasingly more Malaysians to rise and become better citizens. Each year, ten (10) individuals or groups are chosen as award winners, and out of the 10, a Gamuda Inspiration Award winner is chosen to receive RM50,000



for their cause. The winner for 2019 was Sujana Mohd Rejab, whose efforts enabled physically impaired individuals to have equal privileges and access to a quality life with dignity. Other past winners were UmieAktif (2018), a social enterprise project which empowers underprivileged mothers in the Chow Kit area through sewing and crafting skills; Barefoot Mercy (2017), which brings light and builds schools in rural Sarawak; and Kedai Jalanan (2016), a pop-up store that clothes the homeless with dignity.

In addition to these anchor projects that were initiated, Yayasan Gamuda also funds initiatives that meet our objectives for community enhancement.

Yayasan Gamuda adheres to several guiding principles to ensure that all initiatives we support are in line with the Group's aspirations for community investments. We want our projects to be transformative and be able to uplift our beneficiaries with real, effective change that would otherwise not have been possible. All our activities are sustainable in itself, as well as promote self-sustainability in the lives of the beneficiaries for the longer term.

We also wish to empower so our beneficiaries are able to become independent and empowered to take control of their own destiny. We strive to be inclusive, and Yayasan Gamuda activities need to promote inclusiveness in the community. To make an impact, we focus on activities where we have the knowledge and commitment to make a meaningful difference. We promote partnership, as we believe that being co-participants with the beneficiaries in the change process will encourage and promote ownership for both parties.

Lastly, we want to ensure our target projects are in line with the UN Sustainable Development Goals 4 and 6.

# 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 FY2020 Sustainability Report have not been prepared and presented fairly, in all material respects, in accordance with the Criteria defined below.

### Scope of Work

Ernst & Young PLT ("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 FY2020 Sustainability Report ("SR2020") for the financial year ended 31 July 2020.

### Subject Matter

Our limited assurance engagement was performed for the selected KPIs listed in the table below, as presented in the SR2020:

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: <ol style="list-style-type: none"> <li>1. Kota Kemuning</li> <li>2. Valencia</li> <li>3. Bandar Botanic</li> <li>4. Madge Mansions</li> <li>5. The Robertson</li> <li>6. HighPark Suites</li> <li>7. Jade Hills</li> <li>8. Horizon Hills</li> <li>9. Bukit Bantayan</li> <li>10. twentyfive.7</li> <li>11. Kundang Estates</li> <li>12. Gamuda Gardens</li> <li>13. Gamuda Cove</li> </ol>
<b>Innovation</b>	GRI 404-2(a)	Type and scope of programs implemented and assistance provided to upgrade employee skills	Type and scope of programs implemented and assistance provided to upgrade employee skills for the following programs: <ol style="list-style-type: none"> <li>1. Building Information Modelling (BIM) Academy</li> <li>2. Gamuda Plant Operator School (GPOS)</li> <li>3. Construction Training Unit (CTU)</li> <li>4. Tunnelling Training Academy (TTA)</li> </ol>
<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: <ol style="list-style-type: none"> <li>1. 36 stations for MRT Putrajaya Line (27 elevated, 9 underground)</li> </ol>
<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: <ol style="list-style-type: none"> <li>1. Gamuda Group developments within Malaysia (excluding joint ventures)</li> <li>2. MRT Putrajaya Line</li> </ol>

# Sustainability Report

The scope of our work was limited to the selected KPIs presented in the SR2020 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 SR2020, comparisons against historical data, or management's forward-looking statements.

## Criteria

The Criteria for our procedures are:

- The Global Reporting Initiative ("GRI") Sustainability Reporting 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 SR2020 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 SR2020 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 SR2020, 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 SR2020.

## 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 SR2020. 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 SR2020 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 SR2020 for the financial year ended 31 July 2020, provided it is clearly understood by recipients of the SR2020 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 & Young PLT

202006000003 (LLP0022760-LCA) & AF 0039

Kuala Lumpur, Malaysia  
22 October 2020



# Sustainability Report

## GRI Content Index

GRI Standards	Disclosure	Page Reference
<b>ORGANISATIONAL PROFILE</b>		
GRI 102-1	Name of the organisation	Front cover, Back cover
GRI 102-2	Activities, brands, products and services	6-7
GRI 102-3	Location of headquarters	Back cover, 5
GRI 102-4	Location of operations	2-3
GRI 102-5	Ownership and legal form	6-7
GRI 102-6	Markets served	2-3
GRI 102-7	Scale of the organisation	19, 108
GRI 102-8	Information on employees and other workers	108, 110
GRI 102-9	Supply chain	62, 85
GRI 102-10	Significant changes to organisation and its supply chain	-
GRI 102-11	Precautionary principle or approach	-
GRI 102-12	External initiatives	-
GRI 102-13	Membership of associations	62
<b>STRATEGY</b>		
GRI 102-14	Statement from senior decision-maker	10-18
<b>ETHICS AND INTEGRITY</b>		
GRI 102-16	Values, principles and norms of behaviour	71
<b>GOVERNANCE</b>		
GRI 102-18	Governance structure	70, 133
<b>STAKEHOLDER ENGAGEMENT</b>		
GRI 102-40	List of stakeholder groups	72-73
GRI 102-41	Collective bargaining agreements	-
GRI 102-42	Identifying and selecting stakeholders	72-73
GRI 102-43	Approach to stakeholder engagement	72-73
GRI 102-44	Key topics and concerns raised	72-73
<b>REPORTING PRACTICE</b>		
GRI 102-45	Entities included in the consolidated financial statements	262-278
GRI 102-46	Defining report content and topic boundaries	61
GRI 102-47	List of material topics	75

GRI Standards	Disclosure	Page Reference
<b>REPORTING PRACTICE (CONT'D.)</b>		
GRI 102-48	Restatements of information	-
GRI 102-49	Changes in reporting	-
GRI 102-50	Reporting period	61
GRI 102-51	Date of the most recent report	61
GRI 102-52	Reporting cycle	61
GRI 102-53	Contact point of questions regarding the report	61
GRI 102-54	Claims of reporting in accordance with the GRI Standards	61
GRI 102-55	GRI content index	130-131
GRI 102-56	External assurance	127-129
<b>DISCLOSURE: DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED</b>		
GRI 103-1	Explanation of the material topic and its boundary	84
GRI 103-2	The management approach and its components	10-17, 32, 35, 84
GRI 103-3	Evaluation of the management approach	35, 84
GRI 201-1	Direct economic value generated and distributed	84
<b>DISCLOSURE: PROCUREMENT PRACTICES</b>		
GRI 103-1	Explanation of the material topic and its boundary	85
GRI 103-2	The management approach and its components	85
GRI 103-3	Evaluation of the management approach	85
GRI 204-1	Proportion of spending on local suppliers	85
<b>DISCLOSURE: EMISSION</b>		
GRI 103-1	Explanation of the material topic and its boundary	88
GRI 103-2	The management approach and its components	88
GRI 103-3	Evaluation of the management approach	88
GRI 305-1	Direct (Scope 1) GHG emissions	89
GRI 305-2	Energy indirect (Scope 2) GHG emissions	89

GRI Standards	Disclosure	Page Reference	GRI Standards	Disclosure	Page Reference
<b>DISCLOSURE: BIODIVERSITY – PROTECTED AREAS</b>			<b>DISCLOSURE: DIVERSITY AND EQUAL OPPORTUNITY</b>		
GRI 103-1	Explanation of the material topic and its boundary	90	GRI 103-1	Explanation of the material topic and its boundary	107
GRI 103-2	The management approach and its components	90-91	GRI 103-2	The management approach and its components	107
GRI 103-3	Evaluation of the management approach	90-91	GRI 103-3	Evaluation of the management approach	107
GRI 304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	91	GRI 405-1	Diversity of governance bodies and employees	108
<b>DISCLOSURE: BIODIVERSITY – IUCN RED LIST</b>			<b>DISCLOSURE: EMPLOYMENT – HIRE AND TURNOVER</b>		
GRI 103-1	Explanation of the material topic and its boundary	92	GRI 103-1	Explanation of the material topic and its boundary	109
GRI 103-2	The management approach and its components	92-93	GRI 103-2	The management approach and its components	109
GRI 103-3	Evaluation of the management approach	93	GRI 103-3	Evaluation of the management approach	109
GRI 304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	93	GRI 401-1	New employee hires and employee turnover	110
<b>DISCLOSURE: OCCUPATIONAL HEALTH AND SAFETY</b>			<b>DISCLOSURE: EMPLOYMENT – BENEFIT</b>		
GRI 103-1	Explanation of the material topic and its boundary	104	GRI 103-1	Explanation of the material topic and its boundary	111
GRI 103-2	The management approach and its components	104-105	GRI 103-2	The management approach and its components	111
GRI 103-3	Evaluation of the management approach	105	GRI 103-3	Evaluation of the management approach	111
GRI 403-2	Types of injury and rates of injury, lost days, and number of work-related fatalities	106	GRI 401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	111
<b>DISCLOSURE: TRAINING AND EDUCATION</b>			<b>DISCLOSURE: LOCAL COMMUNITIES</b>		
GRI 103-1	Explanation of the material topic and its boundary	102	GRI 103-1	Explanation of the material topic and its boundary	112
GRI 103-2	The management approach and its components	102	GRI 103-2	The management approach and its components	112
GRI 103-3	Evaluation of the management approach	102-103	GRI 103-3	Evaluation of the management approach	112
GRI 404-2	Programs for upgrading employee skills and transition assistance programs	103	GRI 413-1	Operations with local community engagement, impact assessments, and development programs	112-114